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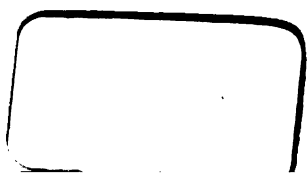
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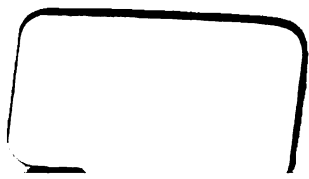
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THE NEW
STATISTICAL ACCOUNT
OF
SCOTLAND.

BY
THE MINISTERS OF THE RESPECTIVE PARISHES, UNDER THE
SUPERINTENDENCE OF A COMMITTEE OF THE SOCIETY
FOR THE BENEFIT OF THE SONS AND
DAUGHTERS OF THE CLERGY.

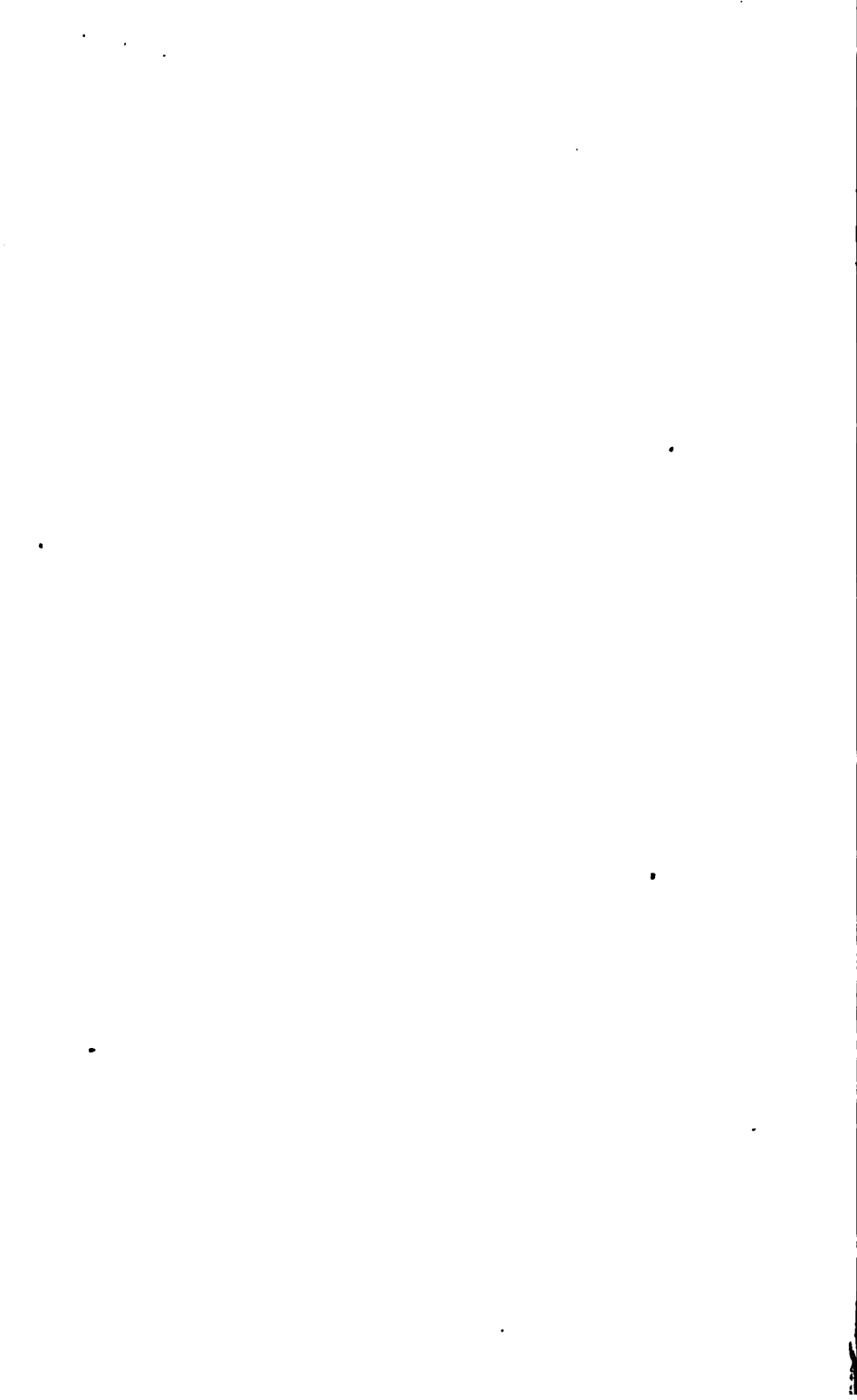
VOL. VIII.

DUNBARTON—STIRLING—CLACKMANNAN.

WILLIAM BLACKWOOD AND SONS,
EDINBURGH AND LONDON.

MDCCCXLV.

76



DUNBARTON.





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Longitude West 4° from Greenwich

PARISH OF DUMBARTON.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. WILLIAM JAFFRAY, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE word Dumbarton or Dunbarton is a corruption of the old name Dunbriton, a compound word, which signifies the fort or castle of the Britons. When a town was built near the walls of the fort, the same name was given to it. It was afterwards applied to the parish, and lastly to the county.

Extent, &c.—The parish is between 7 and 8 miles in length, and from 3 to 4 in breadth. In the Old Statistical Account, the length is stated at from 2 to 3 miles.* This is quite correct as to the inhabited part; but the author has excluded a large moor belonging to the burgh of Dumbarton, which is quite uninhabited, except by a single family. Mr Chalmers has also fallen into error in regard to the extent; he states the length at 4, and the breadth at 2½ miles.† It is bounded on the north, by the parishes of Bonhill, Kilmaronock, and Killearn; on the north-east and east, by Killearn and West Kilpatrick; on the south, by the river Clyde; and on the west, by the river Leven, which separates it from the parish of Cardross. By a survey made in 1818, by Mr Wood, the parish was found to contain 6522 Scots, or 8155 English acres.

Topographical Appearances.—The south part of the parish is flat; but towards the north, about the distance of two miles from the Clyde, it rises rather abruptly, and from that, to the northern extremity, is nearly all moorland. There are a few small hills on the moor, but none of any great height. The most singular object in the parish is the Castle rock, which stands at the southern extremity, on a small peninsula formed by the junction of the River Leven with the Clyde, and is composed of trap of various kinds. In winter, sometimes, when the tides are unusually high, it is entirely surrounded with water. The rock is nearly divided into two equal parts.

* Statistical Account, Vol. iv. page 21.

† Caledonia, Vol. iii. page 914.

The western part is the highest, being about 206 feet above the level of the sea. The eastern peak is not quite so high. There are houses within the walls of the castle, which are capable of containing about 200 men.

Rivers.—The only river in the parish is the Leven, a beautiful stream, which takes its rise in Lochlomond, and after a smooth even course of seven miles over a bed

“ With white round polished pebbles spread,”

forming the western boundary of the parish for several miles, it discharges itself into the Clyde at Dumbarton Castle.

Climate, &c.—The climate is on the whole moderate, though rather damp and variable. Very heavy showers are frequent in spring and autumn. The winter is generally temperate, frost and snow not continuing for any great length of time. The prevailing winds are from the west and south-west. In spring, easterly winds sometimes continue for a long time, and often do much injury to the early vegetation.

Towards the close of the year, dense fogs for days hang over the south part of the parish. At that time, the influenza is very prevalent, and often proves fatal to infirm and delicate people. Scarlet and typhus fever prevail very much, sometimes, indeed, to a most alarming degree. The small-pox, hooping-cough, and measles, are also very common; but the small-pox is usually very mild, and few deaths occur from it, as vaccination is very generally practised.

The soil of the parish is generally fertile, but rather shallow. On the south side, there are several fields of very rich soil. There are many different kinds of soil; in some parts, it is very clayey, in others full of gravel. There is a very plentiful supply of limestone at a place called Murroch glen; and on the moor of Dumbarton, there are quarries of red freestone. The stone when taken out of the quarry is soft, but it soon hardens when exposed to the air.

Zoology—Large flocks of wild ducks (*Anas boschas*), and teal (*Anas crecca*), are common. Besides these, several different kinds of the diver tribe visit the parish. Among the rarer birds are the kingfisher (*Alcedo ispida*), the bittern (*Ardea stellaris*), the black-backed gull (*Larus marinus*), the little auk (*Alca alle*), and the wild swan (*Anas cygnus ferus*). The roebuck is sometimes found, and wild rabbits and hares are tolerably plentiful. Adders are numerous on the high grounds.

II.—CIVIL HISTORY.

No general account of this parish has ever been drawn up (so far as known), except that in the Old Statistical Account. A very good account of the castle, and some excellent remarks as to the ecclesiastical state of the parish, are to be found in the third volume of Chalmers's Caledonia. There are two works on the agriculture of the county of Dumbarton, which contain some notes on the agriculture of the parish: Both of these are reports which were drawn up for the consideration of the Board of Agriculture: the first drawn up by the Reverend David Ure, and published in 1794: * the other, the joint performance of the late Reverend Andrew White, minister of the parish of Kilmarnock, and the Reverend Dr Macfarlane, then minister of the parish of Drymen, now Principal of the University of Glasgow, and published about seventeen years after. † A good plan of the town of Dumbarton was published by Mr Wood in 1818, in the map of the county; at the same time, a separate plan of the town was published by him. A very neat and correct plan was drawn in 1830, from surveys, made by the late Mr Henry Reed, one of the masters of the public school; it belongs to the magistrates of Dumbarton.

Parochial Registers.—The parish registers consist of three sets; the minutes of sederunt; the register of baptisms and marriages; and the register of deaths. The minutes of sederunt consist of nine volumes, which are generally in good order, but are only complete from 1704. The earliest date is 1667. A volume of minutes bearing date about 1620 had fallen, by some chance, into the hands of an individual in town; the kirk-session, however, think that they will be able to recover it.

There are six volumes of the registers of baptisms and marriages. The earliest date is 1642; and they are complete from 1701.

The register of deaths consists of two volumes, the one from 1691 to 1749, the other from 1783 to 1795.

Antiquities.—At a very early period, it appears that there was a town at or near the site of the burgh of Dumbarton, which was called Alclud or Alcluid, and was the capital of the kingdom of the Attacotti. The word Alclud signifies the rock of the Clyde, or on the Clyde; it was at first applied to the castle, and afterwards to the town, as the name Dunbriton was applied in the same manner, at a later period. The Romans had a naval station here, which they

* 4to, London, 1794.

† 8vo, Glasgow, 1811.

called *Theodosia*. This has been disputed, and the mouth of Lochlomond, and Dunglass, in the parish of West Kilpatrick, about two miles higher up the river than Dumbarton, have both been thought to be the situation. It is said that, about two hundred and forty years ago, several remains were found, which evidently showed that the Romans had been masters of the place. On the western peak of the castle rock, there stands a circular heap of stones strongly built together, which is supposed to have been the base of a *pharos* or watch-tower.

The parish, generally, occupies no great space in the page of history; but the castle, from its great strength in former times, and from the strenuous efforts always made to obtain possession of it, is sometimes made mention of. It became a royal fortress at an early period. In 1238, Alexander II. granted a charter to the Earl of Lennox, confirming him in the possession of his earldom; but excepting the castle and certain lands, &c. in the neighbourhood, which had been possessed by his father.* The castle was delivered over to Edward I. at the commencement of the competition for the crown, and was shortly afterwards put into the hands of John Baliol. Sir John de Menteith, the betrayer of Wallace, was made governor by Edward. Sir John governed the fort till 1309, when Robert Bruce obtained possession of it by stratagem. We are not informed of the way in which it was taken; but Mr Chalmers mentions that one "Oliver, a carpenter," contrived the affair, and that he was afterwards rewarded by a grant of some lands.† For a long series of years after, the castle fell into many different hands.

The castle was formally annexed to the crown in 1485 by the act of Parliament, 11 James II. cap. 41. The statute bears, "Item, the Castell of Dumbertane, with the landes of Cardrosse, Rosneth," &c.

The history of the castle is of little importance till the time of Queen Mary. In the early part of her reign, the fort was possessed by the rebel Earl of Lennox; but afterwards possession was obtained by the Royalists. After the unfortunate Queen was dethroned, the castle was still held for her by a faithful adherent—Lord Fleming. It soon, however, fell into the power of the Regent. In the month of May 1571, on a dark and stormy night, one Captain Thomas Crawford, with a few soldiers under his command, succeeded in taking it by scaling the walls. Hamilton, the Arch-

* Chart. Lennox.

† Caledonia, Vol. iii. page 873.

bishop of St Andrews, the governor's wife, and several other persons were made prisoners. The Archbishop was taken to Stirling shortly after, and was cruelly put to death. He was hanged on a tree; and the following couplet is said to have been written on the occasion :—

Vive diu, felix arbor, semperque vireto
Frondebis, ut nobis talia poma feras.

The castle was in the possession of Charles I. at the commencement of the war; but in the early part of the year 1639, the rebels became masters of the place. The King recovered it in the same year. In 1640, it again fell into the hands of the rebels. Shortly after, the Scottish Parliament ordered that the works on the rock should be destroyed. It appears, however, that the command was never obeyed. Oliver Cromwell obtained possession in 1652. At the time of the union, the castle of Dumbarton was one of the forts that was agreed to be kept in repair. The establishment consists of a governor, lieutenant-governor, barrack-master, store-keeper, and surgeon. Lord Lyndoch is the governor at present. The troops usually stationed there, consist of about thirty men, who are generally sent from the *depot* at Glasgow or Paisley; and about twelve men from the Royal Artillery.

The town of Dumbarton was made a royal burgh by Alexander II. in 1222; at the same time, he granted certain lands in the neighbourhood, and the right of fishing in the river Leven, for a considerable distance above the town.

Several other charters were granted in favour of the burgh by succeeding sovereigns, which were all confirmed by a charter of James VI. dated 13th December 1609, and which was ratified in 1612 by Parliament.* About this period, the town was much damaged by floods, so much so, that application was made to the Parliament to obtain a sum of money to enable the magistrates to do something to prevent the town being entirely destroyed. A commission was appointed to enquire what sum would be necessary; they reported that “na les nor the sowme of threttie thowsand pundis Scottis money was abill to beir out and furneis the necessar charges and expenses in pforming these warkies, that are liable to saif the said burgh from vtter destructioun.”† The Parliament accordingly granted the sum of twenty-five thousand merks Scots for that purpose. It appears that that sum was not

* Acta Parl. Vol. iv. page 463.

† Ibid. Vol. iv. page 376.

sufficient, for King James soon after granted a further sum of twelve thousand merks.

At the Union, Dumbarton was joined with Glasgow, Renfrew, and Rutherglen, in returning a Member to Parliament. By the Reform Act it is joined with Kilmarnock, Port-Glasgow, Renfrew, and Rutherglen. The parish church of Dumbarton existed at an early period. The first notice of it appears in the *Rotuli Scotiæ*, in 1296.* Mr Chalmers says, that the church, with all its pertinents, was granted to the monks of Kilwinning, and that it belonged to them till the time of the Reformation.†

A grant of the patronage of the “kirk and parochin of Dumbartane, parsonage and vicarage thereof, with the mans and glib, hous, tenements, biggings, teinds, fruits, rentis,” &c. “to the Provost, Baillies, Counsell and communitie of the burgh of Dumbartane,” was made in 1618. The charter is dated 10th June, and was ratified by Parliament on 26th June 1633. The town-council still enjoy the right of patronage.

Besides the parish church, there was a collegiate church in the parish. It was founded about 1450, by Isabella the Duchess of Albany and Countess of Lennox. A single arch, supposed to be the remains of the church, is still in existence close to the town.

Eminent Men.—The parish of Dumbarton has not produced many men of eminence. The only man of historical importance, who was a native of the parish, was Sir James Smollett of Bonhill. This eminent man was born in Dumbarton, but the precise date of his birth is unknown. He was intended for the profession of the law, and was bred as a writer in Edinburgh. He represented the burgh of Dumbarton in the Convention of Estates in 1688; he also represented the same burgh in several subsequent Parliaments. Smollett supported the Revolution of 1688, and when William III. was raised to the throne he received the honour of knighthood, and was made a Judge in the Commissary Court of Edinburgh. Towards the close of the seventeenth century, when the great question of the Union of England and Scotland began to be agitated in Parliament, he came forward as a zealous advocate of the proposed union. In 1707, he was appointed one of the commissioners for framing the Articles of Union, and was the first member who represented the Dumbarton district of burghs in the British Parliament.

Sir James married Jane M'Aulay, a daughter of Sir Aulay

* Acta Parl. Vol. i. page 25.

† *Calcuttania*, Vol. iii. page 902.

M'Aulay of Ardincaple, and left several sons and daughters. His youngest son, Archibald Smollett, was the father of the celebrated Dr Tobias Smollett, the author of "*Roderick Random*." Dr Smollett was not born in the parish of Dumbarton: his birth-place being in the neighbouring parish of Cardross; but it was at the school of Dumbarton, then taught by Mr John Love, that he received his first lessons in classical learning. His biographer, Dr Anderson, thus speaks of him at that period: "The first blossoms of his poetical genius appeared at this early period of his life: They were chiefly satirical verses on his school-fellows, whose character and conduct disgusted him; and were remembered, as they evinced, when a boy, the sensibility of his temper, and his disposition to chastise insolence and expose rudeness." * When he had received the ordinary course of school education, he went to the University of Glasgow; but does not appear after that to have had any connection with the parish.

Mr John Love, the master of the school of Dumbarton, was a native of the parish of Dumbarton, and born in the year 1695. He received his education at the University of Glasgow, and he was elected about the year 1720, master of the school of Dumbarton. This school had been for a long time prior, a celebrated one for classical education; it is said that George Buchanan the historian, received part of his education here; † this, however, is uncertain. Mr Love, after labouring for fifteen years in Dumbarton, was promoted to the High School of Edinburgh. He continued there about four years, when he was removed to the school of Dalkeith in 1739. Mr Love, along with Mr Robert Hunter, A. M. Professor of Greek in the University of Edinburgh, published an edition of Buchanan's Translation of the Psalms. The book was printed by the Ruddimans, and was published in 1737. ‡ This edition of that beautiful translation is the best which has yet been published. Love was a very great admirer of the writings of George Buchanan, and became engaged in a sharp controversy with one Mr William Lauder, who endeavoured to prove that Johnston's version of the Psalms was superior to that of Buchanan. In 1740, Love wrote a pamphlet entitled *Buchanan's and Johnston's paraphrase of the Psalms compared*; § and in 1749, he pub-

† * Anderson's Life of Dr Smollett.

‡ † Mackenzie's Lives of Scots Writers, Vol. iii. page 136.

§ ‡ Edinburgh, 1737, 8vo.

§ Do. 1740, 8vo.

lished a book called "A Vindication of Mr George Buchanan."* Mr Love died at Dalkeith in 1750, aged fifty-five years. He had a most thorough knowledge of the ancient classics, and possessed the happy faculty of being able to convey his knowledge to others. Dr Anderson says that he was "an eminent scholar, an excellent teacher, and a good man."†

The Rev. John Freebairn, a native, and for several years minister of the parish, though not known for any literary production, was a man possessed of considerable talents. In the General Assembly he must have made a good figure, as Henry Mackenzie, in his *Life of John Home*, describes him thus: He was "a plain country clergyman, but of infinite native humour," &c. "whose talent for enlivening a debate by pleasantry, or turning the laugh against his adversary by sarcasm, not rude, though keen, I have seldom heard equalled by any debater whomsoever."‡

The late Dr Patrick Colquhoun, the author of a "Treatise on the Wealth, Power, and Resources of the British Empire," and for some years one of the police magistrates of London, was a native of Dumbarton. By his will, he left the sum of L. 200 Sterling, to the minister and elders of the parish of Dumbarton, the interest of which was to be divided yearly among poor people of the name of Colquhoun in the parishes of Dumbarton, Cardross, Bonhill, and Old Kilpatrick, not receiving parochial aid.§

III.—POPULATION.

The first statement of the population of the parish of Dumbarton was taken about the year 1750, for Dr Webster. The population then amounted to about 1480. According to the Old Statistical Account, the number in 1790 amounted to rather more than 2000 souls.

In 1801,	.	2541
1811,	.	3121
1821,	.	3481
1831,	.	3623

In the last mentioned year there were 1697 males, and 1926 females.

About the beginning of 1837, an enumeration of the population of the parish was made, in order to answer the queries proposed by the Commissioners for ascertaining the opportunities of Religious Instruction, &c. The population was then found to have decreased very considerably, the total amount of the inhabitants

* Edinburgh. 1749, 8vo.

† *Life of Smollett*, page 12.

‡ *Account of the Life of Mr John Home*, 8vo, Edinburgh, 1822, Vol. i. p. 62.

§ Dr Colquhoun, previous to his removal to London, was Lord Provost of Glasgow.

only being 3116.* This decrease can be accounted for thus: In 1831, when the last Parliamentary census was taken, the trade of the town of Dumbarton was in a very flourishing state. A large quantity of crown-glass and bottles was made annually, which employed a considerable number of men. Shortly after the census of 1831, the manufacture was stopped, and the workmen of course were all thrown out of employment. These men were obliged to leave Dumbarton to seek employment elsewhere, chiefly in England. Since that time, no glass has been made at these works. At the time of taking said census, two large ship-building concerns were in full operation. One of them was not situated in the parish, although most of the men there employed lived in the parish of Dumbarton. Like the glass-works, they were unfortunately stopped, and the men were all thrown idle. Subsequently, they resumed work, but not to the same extent as formerly. The number of inhabitants in the landward part of the parish is about 300; the rest live within the town of Dumbarton.

The average number of births in the parish for the last seven years has been about 69, and the number of marriages during the same period about 30. It is impossible to give any thing like a correct statement of the average number of deaths, as no register of deaths has been kept for more than forty years. According to a private note kept in 1837, the number buried in that year was 127; but from this we cannot form a fair estimate, as, during that time, typhus fever prevailed to a most alarming extent, and many of the people buried were strangers.

There are only about five proprietors in the parish possessing lands above the yearly value of L. 50 Sterling,—besides the burgh of Dumbarton, which possesses extensive property within the parish. The annual value of real property, as assessed in 1815, was L. 4695 Sterling.

In 1831, there were 804 families in the parish; 367 inhabited houses, and 6 uninhabited.

The English language is pretty generally spoken. A considerable number of Highlanders reside in the parish; but, with a few exceptions, they are all able to converse in the English language.

A considerable quantity of game is destroyed by poachers; but the salmon-fishings are not much poached, as the tacksmen are almost constantly on the spot. Illicit distillation was, some years

* All the statements made as to population are according to the census of 1831, unless where specially excepted.

ago, carried on to a considerable extent, but the trade is now quite unknown. A large pawnbroking establishment was carried on a few years ago; in the winter of 1835, the premises were burnt to the ground, and, since that time, the trade has been carried on, on a very small scale.

IV.—INDUSTRY.

In 1831, there were 71 persons employed in agriculture; 12 of these were occupants employing labourers, 13 occupants not employing labourers, and the remaining 46 were labourers. In the same year, there were 81 males employed in manufactures; 405 in retail trade or in handicraft; 56 under the class of wholesale merchants, professional persons, &c.; 130 labourers employed in labour not agricultural.

Agriculture.—The system of farming pursued in the parish is in noways different from that pursued in other parts of Scotland. The *fiar* prices for the last seven years were as follows:—

	1831.	1832.	1833.	1834.	1835.	1836.	1837.
	L. s. d.	L. s. d.	L. s. d.	L. s. d.	L. s. d.	L. s. d.	L. s. d.
Wheat,	2 13 11	2 11 1	2 7 9	1 19 9	1 16 5	2 8 6	2 8 8
Oats,	1 1 1	0 18 7	0 19 1	1 0 3	0 9 1	5 3 1	0 9 9
Bear,	1 10 10	1 7 5	1 5 9	1 3 10	1 3 11	1 7 5	1 7 3
Barley,	1 13 0	1 9 10	1 8 6	1 8 1	1 7 0	1 10 7	1 10 3
Peas & Beans,	1 14 10	1 11 4	1 11 0	1 12 0	1 13 0	2 4 6	1 16 10

Wages.—Farm-servants generally get L. 12 Sterling of wages per annum. Agricultural labourers get the following rates of wages:—1s. 6d., 1s. 8d., 1s. 10d., 1s. 11d., 2s., 2s. 2d., and 2s. 4d. Sterling per diem; the average rate is 10s. a-week.

Rent of Land.—The farms in this parish are usually let on leases of nineteen years. The usual rent of land is L. 2, 10s. Sterling an acre, and some even is let as low as L. 2. The real rent of the parish is about L. 8400.

Fisheries.—The burgh of Dumbarton possesses the right of fishing salmon in the river Leven, and also in the Clyde, from the Castle of Dumbarton to the mouth of Lochlong. The rents vary very much. The right of fishing in the Leven is at present let at L. 281 Sterling a-year. The Clyde fishings in 1836 were let for about L. 58.

V.—PAROCHIAL ECONOMY.

The only town in the parish is Dumbarton, a royal burgh, the chief town of the county of Dumbarton, and the seat of presbytery. The town is situated on the west bank of the river Leven, not very far from its junction with the Clyde. It consists of one

tolerably well built street in the shape of a crescent, and several other smaller streets. The houses are generally closely built together, and many of them very ill-aired. The principal street is kept very clean, and well paved, and has for some time been lighted with gas. In 1831, the population was about 3300, but since that time it has decreased considerably. The affairs of the burgh are managed by a provost, two bailies, a dean of Guild, a treasurer, and ten councillors. Before the Reform Act passed, the council was divided into two classes, *merchant* and *trades'* councillors; but since the passing of that act, the distinction has been abolished. The bailies are empowered to hold Courts for the administration of justice, but they do not hold them at any stated period, and they sit when business requires their attendance. The Sheriff of the county holds regular Courts in Session time every Thursday for the Sheriff Court processes, and commissary causes, and on every second Thursday for small debt causes. The business in these courts has fallen off very much of late years.

Manufactures.—Previous to the year 1831, a considerable trade was carried on in the town of Dumbarton. A very extensive crown-glass and bottle-work was then in full operation. At the time when the old Statistical Account of the parish was published, there were about 130 individuals employed in these works, and the amount per annum of duties paid to Government was L. 3800 Sterling.* Some years after that, the number of workmen was about 300, and the quantity of coal consumed per annum was about 17,000 tons. The largest sum of money ever paid by the company to Government for duties was L. 119,000 Sterling: this was in 1818. The duties never afterwards amounted to so large a sum. When these works were in operation, there were about 2000 tons of shipping belonging to Dumbarton. The number of vessels now belonging to the port is about 40,—containing in all about 1212 tons burthen. The glass-works are to be exposed to sale, in a short time, when it is expected that they will be sold, and that trade will again revive.†

At high water, the river Leven is navigable for large vessels up to the quay of Dumbarton; but at very low tides none can come up, unless of a small size. This is partly owing to a bar across the mouth of the river at Dumbarton Castle, and partly owing to seve-

* Stat. Account, Vol. iv. page 23.

† Since the above was written, the Glass-works have been sold, and are going on in a flourishing manner.

ral sand-banks above that. These, for a small sum, and with no great labour, could be easily removed. There are two shipbuilding yards on the Leven, (one of them in the parish of Cardross), which employ a number of men, and where some beautiful vessels have been built, and are still in progress of building. A small trade in tanning and rope-spinning is carried on; and there is one brick field in the parish.

Means of Communication.—The town of Dumbarton is distant from Glasgow about fifteen miles, and from Greenock about seven. There are two steamers belonging to a company in Dumbarton, which sail to and from each of these places twice a day. Letters are sent also twice a day from Dumbarton to Glasgow, and *vice versa*. There is also a daily communication with Helensburgh, Luss, and Drymen. In summer, a coach starts every lawful morning at nine o'clock for Balloch, with passengers for the Lochlomond steam-boat, and returns to town again in the evening, in time for the steamer which goes to Glasgow. An elegant bridge, 300 feet in length, consisting of five arches, was built across the Leven about the year 1765; it was erected at the expense of Government, and cost L. 2500 Sterling; about L. 150 have been expended on repairing it since that time. About eighty-five years prior to the erection of the bridge, an attempt was made to erect one, and a subscription for that purpose was commenced, but to no purpose.

The greater part of the fences consist of thorn hedges, which thrive remarkably well, and are generally neatly and trimly kept.

Ecclesiastical State.—The parish church is very conveniently situated for the great majority of the inhabitants. It stands in the east end of the town of Dumbarton. The nearest boundary of the parish is distant from it about fifty yards, and the farthest from six to eight miles. There are about eight inhabited dwelling-houses, distant from the church more than two miles, and none farther than three miles. There are sittings in the church for 1265 persons; of these sittings about 90 are free. The average number of individuals attending the parish church throughout the year, is 900; with the exception of about 50, who come from some of the neighbouring parishes, they all belong to the parish of Dumbarton. The minister of the parish only got a manse about the end of 1837, but has not yet got a glebe.

There is a missionary in the town, who is supported by a sum raised by subscription; the salary is L. 52 a year. There are two Dissenting places of worship in the parish, the one a Roman Catholic,

the other a United Secession, Chapel. Neither of these are endowed, the clergymen being supported by the seat rents alone. The Roman Catholic clergyman is provided with a house, the other clergyman is not. The Dumbarton Roman Catholic Chapel is within the diocese of the Bishop of Glasgow. The Baptists have a place of meeting,—a small room in the town; they are by no means numerous. The following will give a tolerably correct statement of the religious persuasions of the people of Dumbarton, as ascertained in 1837: Of the Established Church, 2311; Episcopalians, 35; Independents, 8; Roman Catholics, 284; Relief, 262; United Secession, 113; Baptists, 30; Cameronians, 9; Seceders, 26; Unitarians, 5; number of persons of no religious persuasion, 33; total, 3116. There are several Sunday evening schools in the parish. There is also a Society for the Diffusion of Missionary Intelligence, which meets regularly once a month.

Education.—There are seven schools in the parish, exclusive of the parochial school. Four of these are taught by male teachers, the others by females. The parochial teacher has a salary of £ 40 Sterling per annum, which is paid by the magistrates of the burgh. The amount of his school fees cannot be ascertained. The other teachers depend on school fees alone. At the half yearly examination of the public school in February 1838, the branches of education taught, and the number of pupils learning each branch, were as follows: Greek, 3; Latin, 12; French, 6; English reading, 161; English grammar, 49; mathematics, 3; geography, 22; arithmetic, 78; writing, 96; drawing, 1. Several years ago, the public school was taught by three masters, one taught the Greek, Latin, and French languages, another taught English grammar, &c. and the third taught writing, arithmetic, book-keeping, &c. Since 1833, one master manages the three departments. It is much to be regretted that classical learning is very much neglected now. Not quite twenty years ago, the master of the classical department was able to live comfortably on his school fees, from the number that attended his classes. Now, there are only three Greek, and twelve Latin scholars, making a total of fifteen!

Literature.—There is a public library in the parish, which was instituted in 1797: it contains nearly 2000 volumes,—among which are some good standard works. The “Dumbarton Sabbath Evening School” has about 600 volumes, which are lent out to the scholars. The scholars of the public school have also a small

library,—which now consists of nearly 300 volumes. The Conservative and Liberal parties each support a reading-room in Dumbarton.

Friendly Societies.—There are four Friendly Societies in the parish, which were instituted for the purpose of assisting the members in time of distress. All members contributing regularly to these societies are entitled to a weekly allowance when unable to work. There is also a Society for the relief of indigent old men and women, which has already done much good.

Poor and Parochial Funds.—The average number of persons receiving parochial aid, is about 70. The amount of collections at the church door, each Sunday, is generally about L. 1. The proprietors in the parish are assessed for the support of the poor, but only within the last four years. The average amount of the assessment is about L. 300 Sterling. The amount of extraordinary collections in the parish church during the last two years was as follows: in 1837, L. 82, 17s. 9d., and in 1838, L. 59, 0s. 6d. Sterling.

Fairs.—There is only one fair held within the parish. It is held annually on the second Tuesday of August, on a common, close to the town; the business transacted there is of no great extent.

Inns and Ale-houses.—There are two good inns in Dumbarton, which are well filled, in summer, by travellers going to, and returning from, Lochlomond. The number of ale-houses yearly licensed is from 40 to 50.

Fuel.—Coal is almost the only fuel used, and is all brought from Glasgow. A small quantity of peats is used by the poor.

February 1839.

PARISH OF OLD KILPATRICK.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. MATTHEW BARCLAY, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name of the parish is compounded of *Cil*, the Gaelic word for a church, and the name of the patron saint of Ireland. Tradition says that he was born in this parish. This is doubted; but still it must be confessed, that, if this be not the birth-place of Saint Patrick, it is difficult to account for the name of the parish, and for many traditions in regard to his character and doings, which have been handed down for generations in the neighbourhood.

Extent and Boundaries.—The parish is about 8 miles long, and its greatest breadth is from 4 to 5 miles. Its figure is triangular, with the base resting on the Clyde. It contains about 18 square miles. It is bounded on the south, by the river Clyde; on the west, by the parish of Dumbarton; on the north, by Dumbarton, Killearn, and New Kilpatrick; on the east, by New Kilpatrick and Renfrew. On the opposite side of the Clyde are Renfrew, Inchinnan, and Erskine.

Topographical Appearances.—The parish is situated on the banks of the Clyde; and although this river is celebrated for the beauty and the diversity of its scenery, it may be affirmed that there is no part of the scenery of the Clyde which excels that of Old Kilpatrick. In sailing down the river as we pass Renfrew Ferry, near which the parish begins, at the village of Yoker, the country is flat and well cultivated, having all the appearance of land that will repay the skill and the toil of the husbandman. At this part, the whole breadth of the parish is seen rising with a gentle slope to the upper boundary. As we proceed down the river, the part in view is still fertile and well cultivated, but begins to be narrowed by the enclosing hills, so that by the time the navigator sweeps past the parish church and the village of Old Kilpatrick, the base of the hills comes nearly to the water's edge. At the part

of the parish farthest down the river, it opens up again into a plain of considerable extent.

The view all the way down is exceedingly diversified. The first public work which we pass is Dalmuir-shore Soda Work, on the brink of the river, which, with its furnaces and chimnies, and burnt rubbish, but ill accords with the scene around. Farther down, and about half a mile from the river, are Dalmuir paper-works, which rather add variety to the prospect than diminish its beauty. Farther on still, we see up the glen of Duntocher, at the head of which stand those huge cotton-works, part of which is seen, which give employment to thousands who live in the villages, lying concealed from the view. When we come to Erskine Ferry, the bend of the river is one of the finest which can be imagined. On the left are Lord Blantyre's house and grounds in the parish of Erskine, and on the right is the village of Old Kilpatrick, with its church and its tower, and its white-washed houses, which are situated at the bottom of the Kilpatrick braes, rising to the height of about 1200 feet above the level of the sea. On the sides, on one part are well cultivated fields, and rich crops; on another, fine growing plantations, and on others, rocks and copsewood. The summit also is now smooth, now rugged, now planted, and now abrupt and broken. The bend of the river extends as far down as Dunglass Castle, about two miles and a-half, and is varied all the way in the most beautiful manner. After passing the village, the house of Glenarbuck is seen imbedded in trees, giving the idea of all that is peaceful and sheltered, and retired; and then not far off at the river's edge, is Bowling Bay, at the mouth of the Forth and Clyde Canal, with its basin and docks, and all the bustle of merchandize and ship-building. Beyond this, rise in great beauty the hills and the woods of Auchentorlie. To complete the view, there is often a multitude of vessels in sight; the ferry-boat crossing with its load of carts or carriages, and live-stock of all kinds,—the gay steamer with decks crowded, flags flying, and band of music playing, the powerful Tug with her steam and smoke, dragging her half dozen of vessels, with yard and sail, some of which have probably come from the most distant parts of the world; and sailing vessels of all descriptions, making their way up or down, as wind and tide will serve their purpose.

On the public road, there are two views which have been long celebrated,—the one from Dalnotter Hill, and the other from the

Chapel Hill,—the one a quarter of a mile before entering Old Kilpatrick village, and the other a quarter of a mile after leaving it. But to leave the public road, and ascend the hills, adds greatly to the magnificence of the sight. Within five minutes' walk from the village, and with no great exertion in the ascent, the whole length and breadth of Renfrewshire is spread before you. Ascending higher still, the prospect extends, and opens up to view a large part of Lanarkshire, with Tintock as a termination. Again, if we proceed across the braes, about four or five miles from the Clyde, we come to a round hill named Duncomb, from which, owing to a low part on the ridge of the Kilpatrick hills, a magnificent scene is seen to the south, and east and west; while, to the north, Benlomond and his brother mountains are full in view, and Lochlomond with its islands is spread before us. This is a view which is not much known, but may be ranked among the fine views of Scotland. From one part of the Kilpatrick braes, Ailsa Craig may be seen. It may also be remarked, that the abrupt and rocky hill Dumbuck, makes a beautiful termination to the range at the western extremity.

Hydrography.—The parish abounds with excellent springs of water. There are two lochs in the high part, behind the ridge of the Kilpatrick braes, which supply the principal stream in the parish, which passes Faifley and Duntocher, and falls into the Clyde at Dalmuir. This stream, from the many falls in its course, and excellent situations for dams, might move machinery to any extent; but, owing to differences of opinion among the proprietors, it has never been made available to the extent of its power. Most of the work of this kind on its banks is done by the power of the steam-engine. There is no other stream in the parish which is of much consequence in this way.

Geology.—The geology of this parish is the same in its general features as that of New Kilpatrick. The whole is of the coal formation, and the hills, which rise through or are superimposed, and which so beautify the district, are of the trap formation. The rocks are principally greenstone, amygdaloid, trap-tuffa, wacke, and basalt. Although there are no basaltic pillars to equal those of Staffa, or the Giants' Causeway, yet there are some so regular and perpendicular, as to give a pleasing variety to the scene. In the Auchentorlie and Glenarbuck grounds, there are rocks of this description, which form precipices so abrupt and high, as to require the

practised eye of the mountaineer, or of the enthusiastic geologist, to overlook the brink without a shudder. It is these which form the deep chasms in the hills, which give their romantic character to these beautiful spots, and which cause the Kilpatrick braes to impress the most untaught in the beauties of nature with feelings of admiration. Any organic remains which have been discovered are principally of the vegetable kind. There are also strata of clay and iron-ore.

It may be here mentioned, that lately, at Dalmuir, a bed of shells was discovered in a section of the sand deposit, which is to be found in many places in this district of country. This discovery was made in consequence of making some alteration in the course of the Dalmuir Burn. A full account of the whole matter is published in Vol. i. page 131, of the Records of General Science. The communication is made by Mr Thomas Thomson, son of Dr Thomson of Glasgow. He says, "The locality in which the fossils are exposed is situated on the banks of the Dalmuir Burn, about 100 yards above the bridge, by which the road from Glasgow to Dumbarton crosses it, and about a mile from the Clyde. The current of the stream is not very rapid, so that the bed of shells is probably not more than 20 feet above the level of the Clyde, which at that place is sensibly salt at high water. The breadth of the channel of the stream is about 14 feet, and the depth of the banks about $2\frac{1}{2}$ feet. The sandy deposit appears to extend on both sides of the stream upwards and downwards, without alteration, but the fossils are confined to a circular, or rather elliptical space, the breadth of which (across the stream) is about 25 feet, while its length is only about 15 feet. The deposit extends from each bank only about 6 feet, so that more than one-half of the whole mass has been cut away during the change of the course of the rivulet. The whole depth of the bed, as it exists at present, is about $2\frac{1}{2}$ feet; but I am informed by the overseer upon the estate, who superintended the workmen during their operations, that after the soil had been removed, 10 or 12 feet of earth full of sand was carried away, so that the depth of the bed in its original state, must have been 12 or 14 feet."

"The number of species which have been already collected amount to about 30." The names are given in the Journal. Mr Thomson again says, "The shells which have been found

in the Dalmuir sand have in general lost all colour, and become of a dull yellowish white, but otherwise, though brittle, they are in a state of beautiful preservation. They appear to be all natives of the British seas, with the exception of the *F. lamellosus*, which has only been observed about the Straits of Magellan, and *Nautica glaucinoides*, which is a crag fossil." And again, "The shells which have been assembled in this confined spot, and buried in sand in this extraordinary manner, appear to have been collected from very different situations. The *Nucula minuta*, and the *Velutina*, inhabit deep water; the *Buccina* and the *Astarte* frequent the sands about low water, in which the *Mya truncata* and the *Cardium edule* bury themselves; while the *Mytilus* and the *Modiola* attach themselves to rocks in deep water, and the *Littorina* (and probably the *Natica*) frequent those rocks which are alternately covered and laid bare by the ebbing and flowing of the tide." And again, "It is remarkable, and is a circumstance which adds to the extraordinary nature of this deposit, that the sand in the immediate neighbourhood of the fossils is quite destitute of any traces of shells. Few of the shells which it contains have been previously found fossil, and therefore it appears probable, that, if not considered as belonging to the recent period, it must be referred to a very late tertiary era, at a time when all the lowlands on the banks of the Clyde, at least as far up as Glasgow, have been covered by an arm of the sea."

Mineralogy.—The mineralogy, as well as the geology of this parish, is full of interest. A great variety of zeolites have been found. The different species are, Prehnite, Stilbite, Heulandite, Thomsonite, Laumonite, Cross-stone, both single and crossed; Analcime and Mesotype. Of these, beautiful specimens have been collected. The Hunterian Museum has been enriched with a splendid collection of these treasures of the rock, which were presented by Dr William Couper, Professor of Natural History in Glasgow College. The Doctor continues to make an annual perambulation of these hills with his geological pupils, as affording the most interesting field of observation in the neighbourhood of Glasgow. -There are two quarries of whinstone, which are wrought for providing metal for the roads, out of which these different species of minerals are still obtained from time to time. The one is about half a mile behind the village of Old Kilpatrick, and the other is on the side of the public road from Glasgow to Dumbarton, about a quarter of a mile below Bowling Inn.

Soil.—The soil consists of diluvial deposit, in general dry with a gravelly bottom; but in some places on the banks of the Clyde, especially at the part farthest down the river, it is fine deep loam with clay bottom. The rising grounds are so situated as to show that the deluge which caused their formation must have been from north-west to south-east.

Mines.—There are mines of coal and lime in the neighbourhood of Duntocher. The shafts are from 120 to 200 feet deep. These mines contain ironstone, limestone, coal, and pyrites. The ironstone varies in thickness. The limestone and coal are regular; the coal is about $4\frac{1}{2}$ to 5 feet thick, and the limestone, which lies immediately above it, is about the same. It is expected that seams of coal will be found lower down, but no search has been hitherto made for them. The coal, in burning, cakes like the Newcastle coal.

Zoology.—The game in the parish are hares, pheasants, partridges, red grouse and black grouse. Besides these, there are roe-deer in Lord Blantyre's woods on the hills. There are foxes, too, which sometimes do considerable damage on the sheep farms.

The parish is not remarkable for breeding any species of cattle.

Botany.—There are no rare plants. The soil is congenial to all sorts of forest and fruit trees. Oaks, ashes, elms, beeches, planes, limes, and fir-trees, of various kinds are growing, both in the upper and lower parts, with great luxuriance. Many of them are of a great size, and must be of a great age, and are still fresh and vigorous. Fruit trees also grow well. They have not been much cultivated, but, from the appearance of those which have been planted, there seems to be nothing in the soil or subsoil to prevent them from growing to any size, and bearing fruit to any age, to which fruit trees in this country can attain.

II.—CIVIL HISTORY.

Antiquities.—It is well known that the Roman wall between the Forth and Clyde terminated in this parish. It was begun by Agricola, and completed by Antoninus Pius, and is generally called Graham's dike, from a tradition that a Scottish warrior of this name first broke over it. All vestiges of the wall within the parish have disappeared; but the *fossa* which ran parallel to it may still be traced in several places, particularly on the farm of Carleith, and in a field near the Cleddin burn. The very accurate survey made by General Roy in 1755, and published by the Antiquarian Society in 1793; and the earlier but careful remarks of Gordon, Stukely, Horsley, and Maitland, enable the antiquary to trace the

line with tolerable accuracy. The progress of agricultural improvement, and, as a consequence, the obliterating of such remains of antiquity, within the last fifty or sixty years, have been so great, that without the assistance afforded by the works of these zealous investigators, it would be impossible to trace this mark of Roman conquest. Nor is it wonderful that a bulwark of turf should have disappeared after the lapse of seventeen centuries.

The termination of the wall was at one time understood to have been at Dunglass, but it is now generally agreed to have been at the Chapel Hill, a short distance from the parish church. Two sculptural stones with the usual inscription, containing the number of the legion, and the amount of labour performed in the construction of the wall, were found there, and presented by Hamilton of Orbiston (to whom this property and the neighbouring estate of Erskine belonged) in 1695 to the College of Glasgow; and another also discovered there, was presented soon after by the Marquis of Montrose to the same learned body. The workmen employed in digging the canal in 1790, which passes at the bottom of the Chapel Hill, found, in a subterraneous recess, vases and Roman coins; and there is little doubt, that more careful research might bring to light more of these interesting monuments.

At Duntocher there is a bridge called Roman, but it is considered by some of the best antiquarians,* to have no greater claim to such high antiquity, than that the materials may have been afforded by the neighbouring fort. Others, however, are inclined to support the antiquity of the bridge. Its appearance is much in favour of an ancient date. Beside it, there is a stone with an inscription, bearing that the bridge was repaired in 1772 by Lord Blantyre, and also stating that it was built in the reign of Hadrian, which proves what was the current opinion at the time of erecting the stone.

The lines of the Roman fort at Duntocher can now with difficulty be traced. A stone similar to those found at the Chapel hill, but more elegant in design and execution, was discovered here. It stood in Gordon's time on the gate of Cochno, but was soon after given by the proprietor, Mr Hamilton of Barnes, to the Glasgow College. Engravings of these stones will be found in Gordon's *Itinerarium*. The College of Glasgow engraved a series of similar monuments found along this line of frontier, but for their own use exclusively.

* Roy's Military Antiquities, page 158.

A subterraneous building, supposed by some to have been a *sudorium*, or hot-bath, and by others a place for holding grain, was accidentally discovered in 1775, in the same hill on which the fort was situated. The cavity had two circular chambers, surrounded with a wall of hewn stone. The whole was covered over with tiles to support about two feet depth of earth above. Some husks of grain were found in the place. Now, there is nothing to mark the excavation, but a small sinking in the surface above where the cavity was situated.

A Roman altar without any inscription was found in a field in the neighbourhood; and now ornaments the gable of the miller's house at Duntocher mill. Roman querns have often been found in the adjacent places. One was found in digging the foundation of a new church in connection with the Establishment, which is now erecting on the side of this hill, where the Roman invaders of our country had their fort and reared their altars to their idol gods. A Roman vase was found in one of the fields of Auchintoshan estate, the property of John Cross Buchanan, Esq.

About a furlong to the north of Duntocher, on the property of James Hamilton, Esq. of Barnes, there are two artificial *tumuli*, described by Horsley (*Britannica Romana*, page 164.)

There are distinct vestiges of hill-forts on several of the neighbouring heights, particularly on one called the Round Hill, and another in the grounds of Auchentorlie.

Dunglass Castle, on the edge of the Clyde, was the messuage of the barony of Colquhoun. The writer of the former Statistical Account of this parish, misled by Pennant, confounds this Dunglass with another more important place of the same name, in Berwickshire, where Lord Haddington and many gentlemen of quality were blown up in 1640. This obvious mistake has been transferred by Chalmers to the pages of his *Caledonia*, Vol. iii. p. 865.

In the church-yard, there is a monumental stone, to which tradition has affixed the name of Saint Patrick. It is, however, the sculptured effigy of an *armed* knight, and, from the style of execution, of the fourteenth century. It has no inscription, but it may be very plausibly assigned to some one of the knightly race of Colquhoun.

In the garden at Mount Blow, the residence of William Dunn, Esq. there is a monumental cross. It is of the style so prevalent

in the west of Scotland, especially in Cantyre and the Hebrides, and of the twelfth century. But as this cross (as mentioned in the former Statistical Account) was then used for a foot bridge, one side is completely disfigured, and the other very much injured. There has been an inscription, but two side figures and a running ornament are all that now can be perceived. There is a similar cross at Barrochan, in the parish of Kilallan, which has been engraved in Hamilton of Wishaw's description of Renfrewshire.

Land-owners.—The chief land-owners are, Lord Blantyre; William Dunn, Esq. of Duntocher; James Hamilton, Esq. of Barnes; Andrew Buchanan, Esq. of Auchentorlie; Colonel Geils of Dum-buck; W. C. Stirling, Esq. of Edinbarnet; John Cross Buchanan, Esq. of Auchintoshan; Alexander Campbell, Esq. of Barnhill; Robert Glasgow, Esq. of Glenarbuck.

Parochial Registers.—The parochial registers for marriages and baptisms begin at 1688, and are regularly kept; but, from decay, are imperfect till 1740. The registry of baptisms does not, however, shew the number of births, as the Dissenters do not register their childrens' names.

Kilpatrick, a Burgh of Barony.—Why the use of the privileges of being a burgh of barony should have ceased, it is difficult to say, as there is as much need as ever for bailies and their officers to restrain the bad, and encourage the good. The jail is still standing with its iron bars on the windows, and its door well studded with nails, but it is now used as a private dwelling. A bur-gess-ticket, dated 13th day of October 1760, states that Kilpa-trick is a burgh of barony, in virtue of a charter under the Great Seal, dated 27th January 1679. It declares that the village of Kilpatrick is to be the head burgh of barony, with power to name bailies, to create and admit burgesses, in and to all the freedoms, liberties, and immunities allowed by law, and known to appertain to any *sick* burgh within the kingdom.

IIL.—POPULATION.

In 1755, the parish is said to have contained	1281 souls.
At the date of the last Statistical Account,	2452
In 1811, 1595 males and 1833 females, in all	3428
In 1821, 2007 males and 1685 females, in all	3692
In 1831, 2820 males and 3059 females, in all	5879

The cause of so vast an increase is the erection of so many public works, especially the cotton spinning and power-loom weaving factories at Duntocher and Faifley.

Most of the chief heritors are resident, with the exception of

Lord Blantyre, whose seat in this neighbourhood is in the adjoining parish of Erskine.

Habits of the People.—The habits of the people in food and dress are like those of the rest of the west of Scotland. Oatmeal and potatoes, with a portion of butcher-meat, is the staple of those employed in out-door work. A good deal of wheaten bread is also used ; but the workers in the factories having hard labour within doors, and having better wages, both require and obtain a diet more approaching to the luxuries of life, than that of those whose lot it is to enjoy fresh air, and to be able to use and enjoy a coarser food. Tea is a universal beverage with all classes.

IV.—INDUSTRY.

Agriculture.—The exact number of acres in the parish has not been ascertained ; but the following statement may be considered as an approximation sufficiently near the truth, for the purposes of a work of this kind :

Arable,	-	5915 acres.
Pasture,	-	4940
Wood,	-	572

Total, 11427 imperial measure.

The valued rental is L. 4441, 13s. 8d. The real rental may be estimated at about L. 12,500.

Rent of Land.—The rent of arable land is in some cases as high as L. 3 per acre, and in others as low as L. 1. The average may be considered about L. 1, 15s. per imperial acre.

The average rent of grazing for a milk cow per season is about L. 5, and of a sheep about 7s.

The rate of common country labour is from 1s. 10d. to 2s. per day. The rate for labour which requires more expertness, such as thrashing or mowing, is about 2s. 6d. The wages of all kinds of tradesmen are about the same as in Glasgow.

The price of all country produce, and of provisions of all kinds, is as high as in the Glasgow market. Every article of foreign produce is higher ; as in all cases the expense of carriage must be added, and an additional profit to the retailer, who deals on a smaller scale than retailers in town.

Cattle.—The draught horses are good, and of the active strong make of those which are now generally used in the west of Scotland. Few are bred in the parish, but from their appearance they may be considered to be of the Lanarkshire breed. There are but few saddle-horses.

The black-cattle, which are fattened in the grazing part of the

parish, are mostly of the Highland breed, and are bought at the large fairs or trysts in the country round.

The milch cows, of which there are a great number, are of the Ayrshire breed. Little cheese is made, as the farmers find it more profitable to supply the villages of the parish, or the neighbouring towns, with milk and butter. Part of the milch cows are reared in the parish, but a great many are brought from neighbouring parishes. Some of the farmers have been remarkably successful in bringing their stock to the greatest perfection, both as regards the symmetry of the form of the animal, and the quantity and the quality of the produce. The butter of one of the dairy farms is so well known in the Glasgow market for its excellent quality, that it brings regularly ten per cent. more than the ordinary price.

The sheep which are reared and fed in the moor parts of the parish, are nearly all of the black-faced kind.

The leases of land are in general for nineteen years.

The Average gross amount of Raw Produce.—This cannot be stated very accurately, as a number of farms have been unlet, and have been under a course of improvement by their proprietors. Some of the lands have been thrown into pasture which were cultivated before, and may soon come to be cultivated again. Some others have not been under a regular rotation of crops. But the following statement may be considered an approximation :

985 acres	oats, at L. 4, 16s.	-	-	L. 4728	0	0
721 do.	potatoes, at L. 12,	-	-	8652	0	0
264 do.	turnips, at L. 8,	-	-	2112	0	0
822 do.	wheat, at L. 6, 10s.,	-	-	5343	0	0
165 do.	barley, at L. 5,	-	-	825	0	0
985 do.	hay, at L. 4,	-	-	3940	0	0
1973 do.	arable pasture, at L. 1, 15s.	-	-	3452	15	0
5512 do.	pasture and wood, at 6s.	-	-	1653	12	0
11427	Total,	-	-	L. 30706	7	0

Quarries and Mines.—Besides the mines of coal and limestone, mentioned under the head of Mineralogy, there is abundance of freestone and whinstone, quarries of both of which are wrought in different parts of the parish.

Fisheries.—There are two fishing stations on the Clyde, but these are not of much value,—the one never renting more than L. 2 or L. 3 a-year; the other never more than L. 6 or L. 8.

Manufactures.—*The factories of William Dunn, Esq. for spinning and weaving cotton.*—These consist of four large mills: the Faifley mill, the Duntocher mill, the Milton mill, and the Hardgate mill, all situated within less than a mile of each other. It was about the year 1808, that these works were commenced.

About that time, Mr Dunn purchased the Duntocher mill, which had been used for spinning wool and flax and cotton yarn. The work was then unoccupied, and the village almost deserted. In two or three years after, Mr Dunn purchased the Faifley mill from the Faifley Spinning Company. This had been used for spinning cotton, but on a small scale. He next purchased in 1813 the Dalnotter Iron-Works, from Messrs Richard and Robert Dennistoun, which had been occupied by them, as a mill for slitting and rolling iron, and manufacturing implements of husbandry, nails, &c. At the time Mr Dunn became proprietor of the works, the whole of the men and women employed at them did not exceed 150.

The Duntocher and Faifley mills were first greatly enlarged. The Milton mill, which was begun in 1821, was built on the site of the Dalnotter Iron-Works, and after this a large addition was made to the Faifley mill. The Hardgate mill was begun in 1831.

These four establishments are exclusively employed in spinning and weaving cotton.

The machinery now in operation is as under : mule spindles, 66,820 ; throstle spindles, 7236 ; total spindles, 74,056 ; power-loom, 530.

The quantity of cotton spun per annum is about 1,000,000 pounds weight ; and the yarn produced, which varies in fineness from No. 12 to No 130, may be stated to be about 875,000. The cloths manufactured are of different fabrics from 9⁰⁰ to 20⁰⁰ reed, and vary in breadth from 26 to 72 inches. The number of yards produced annually, may be stated to be 2,000,000.

The machinery till lately was driven by water power. There were six water wheels of various dimensions employed ; but there has been erected a powerful steam engine at Faifley, and other two are in progress at Milton and Duntocher, which will be in operation in the course of the present summer, 1835.

The number of persons employed in the spinning and weaving departments, is upwards of 1400 ; 256 men, earning from 10s. to 30s. per week ; 626 women from 6s. to 10s. ; 120 boys, fourteen years and upwards, from 5s. to 8s. ; 180 boys from 11 to 14, from 2s. 6d. to 5s. ; 235 girls, from 2s. 6d. to 5s. ; total number employed 1417.

As part of the produce of these works, Mr Dunn has acquired landed property in the parish to the extent of about 2000 acres, nearly all arable, and much of it as good land as any on the banks of the Clyde. He possesses also about a fourth part of undivided moor, capable

of grazing about 266 sheep. Of this estate Mr Dunn farms about 1200 acres, himself. It is on his property, also, that the lime and coal-works already mentioned are situated.

The estate, although acquired at different times, lies all compactly together, extending along the banks of the Clyde for about two miles. It is intersected by the Glasgow and Dumbarton turnpike road for about two miles, nearly parallel to the Clyde, and in a diagonal direction by the Forth and Clyde Canal, for about two miles and a half.

Besides his own works, there are on Mr Dunn's property the two important establishments of Dalmuir Paper-Works, and Dalmuir Shore Soda Works. There is a quay, also, at Dalmuir for loading and landing goods, which has been in existence beyond the memory of man.

Besides the persons occupied in weaving and spinning, Mr Dunn employs about his works and on his lands, masons, wrights, coal and lime-workers, quarriers, brick-makers, farm-servants, and other labourers, to the number of 250. The total amount of wages which he pays in the parish is about L. 30,000 annually.

In addition to the people employed by Mr Dunn within the parish, he employs in Glasgow, engineers, mechanics, iron and brass-founders, to the number of about 200, whose wages annually amount to about L. 9000. Much of the work done by these men is for the establishments in this parish, as they are employed in making spinning and weaving machinery, and steam-engines, partly for sale, and partly for the supply of Mr Dunn's own works.

Mr Dunn is one of the most remarkable instances which the history of our country presents, of a person who has risen to great affluence, whose only patrimony at the first was the knowledge of a trade, united with great sagacity, great industry, and great perseverance.

Manufactures.—Dalmuir Paper-Works, possessed by Edward Collins, Esq. All kinds of paper are manufactured here. There are employed at these works, 5 men, at L. 1, 2s. a-week; 58 at 11s.; 91 women, at 6s. 2d.; 17 boys, at 5s.; 5 girls, at 4s. 6d. The value of the paper manufactured annually, is about L. 30,000. The duty paid to Government is about L. 10,000 a-year.

In this manufacture there has been great improvement. By the introduction of machinery, a much greater quantity is made by fewer hands.

Soda works, at Dalmuir Shore, possessed by Messrs Charles Todd and Co.—The soda works were first established here by the father of the present Lord Dundas, under the superintendence of the late Earl of Dundonald, who, much to his own honour and his country's advantage, passed a considerable time at this place in scientific pursuits. His Lordship was the first who introduced the making of soda on a large scale, by using soap-makers' leys, which formerly used to be run off as waste. At the same time, the extended demand interested the scientific world, and induced the adoption of other modes for the production of this article.

At these works, are made weekly about 30 tons sulphuric acid, which is wholly employed in decomposing common salt towards the manufacture of bleaching powder, or the chloride of lime. The *residuum* of the operation is converted into the well known soda of commerce, used in great quantities for domestic purposes, and by soap-makers, bleachers, dyers, potters, &c.

The number of hands employed is from 80 to 100, all male adults, who work from six o'clock till six o'clock, and, as the operations go on night and day, one part relieves the other. The average wages are about 11s. per week.

As the works have not been established a sufficient length of time, it is impossible to speak decisively of the effects on the health or longevity of the workmen employed.

Bleaching and Calico-Printing Works at Milton Field, possessed by Patrick Mitchell, Esq.—The number of hands employed, when the works are in full operation, is from 400 to 500. They work six days in the week, 10 hours a-day, with the exception of Saturday. On that day, all the children and mechanics, which include more than three-fourths of the whole, work only eight hours. The remaining fourth continue the usual time.

The men, when fully employed, can earn from L. 1, 5s. to L. 1, 10s. a-week; the women about 6s.; and the girls and boys from 3s. 6d. to 5s. 6d.

Dye-works at Cockney Field, possessed by Messrs Macdonald and Mackay.—The manufacture carried on here is dyeing Turkey red on cotton cloth, and printing the cloth which has been dyed.

The hands employed are about 70; say 32 men, 18 women, 8 girls from twelve to sixteen years of age, and 12 boys about the same age. Hours of work from six in the morning till seven in the evening, allowing an hour for breakfast, and an hour for dinner.

The men make about 12s. to 13s. a-week; the women 6s. to 7s.; and the boys and girls from 3s. 6d. to 4s.

Ship-building yard, at Bowling, possessed by Mr David M'Gill.—This yard has been long in existence. The vessels built are sloops up to 170 tons, and vessels for the canal navigation. The number of hands are, 10 journeymen at L. 1, 1s. a-week, and 6 apprentices at 6s. a-week.

Ship-building yard at Little Mill, possessed by Messrs Mills and Wood.—This yard has been established only since the month of May 1834. The kind of vessels built hitherto has been steam-vessels of a large class. The hands employed at present, April 1836, are, 31 journeymen, at L. 1, 1s. a-week; 41 apprentices, at 7s.; 10 sawyers, at L. 1, 1s.; 2 labourers, at 10s.; 4 smiths, from 15s. to L. 1, 1s.; 6 joiners, from 15s. to 18s.

Distilleries.—Of these there is one at Little Mill, possessed by Mrs M'Gregor. The amount of gallons yearly is about 48,211, the duty on which is L. 8035, 3s. 4d. The amount of malt consumed is 11,180 bushels, the duty on which is L. 1643, 7s. 9d. making a total of duty annually of L. 9678, 11s. 1d. There is another at Auchintoshan, possessed by Messrs Filshie. The total amount of duty is L. 3150, 10s. 8d. for last year.

Forge at Faifley, possessed by Mr James Marr.—The manufacture here is spades and shovels. The number of hands is 27, of whom a few are boys. The men, when in full work, can earn L. 1, 1s. a week.

Works on a Smaller Scale.—Besides the large manufacturing establishments, there are a few on a small scale. There is a dye-work at Hardgate, and several nail-works on a small scale. There are a few weavers employed by Glasgow and Paisley houses, and a good many females who work at embroidering muslin, also employed by Paisley and Glasgow manufacturers. Indeed, this is the employment of most of the females who have spare time, besides managing the domestic arrangements of the family.

V.—PAROCHIAL ECONOMY.

Market-Town.—The nearest market-town is Dumbarton, which is about a mile from one extremity of the parish, and about five miles from the church and manse.

Villages.—The villages are Old Kilpatrick, Bowling, Little Mill, Milton, Dumbuck, Dalmuir, Dalmuir Shore, Yoker, Duntocher, Faifley, and Hardgate.

Means of Communication.—There are carriers passing every

day from Glasgow to Dumbarton, and the villages to the west. There is a stage-coach daily from Duntocher to Glasgow. But the chief means of travelling are the steam-boats on the Clyde, which pass up and down almost every hour of the day. There are four stations for taking on board and landing passengers by means of small boats; one at the Brick-house, one at Erskine Ferry, one at Bowling, and one at Dunglass. The length of the turnpike roads is twelve miles, and of the statute labour roads sixteen miles, all in excellent repair. The Forth and Clyde canal intersects the parish for about five miles, from which the chief advantage is the bringing of coals and manure. Letters are conveyed by a branch of the Glasgow post-office. There is an arrival, morning and evening, from Glasgow, and one every evening from Dumbarton. There is a departure every evening for Glasgow, and every morning for Dumbarton.

Ecclesiastical State.—The parish church is conveniently situated, being about four miles from each extremity of the parish, lengthwise, and there are not above two houses five miles distant. The church was built in 1812, and is in good repair. According to the plan, it was to contain 790, but, in fact, there is not seat-room for more than 750 or 760, at eighteen inches a sitter. All the sittings are allocated to the heritors. The manse was built nearly forty years ago, and repaired in 1829. The glebe contains about 8 Scotch acres, besides the garden, and may be valued at L. 32 per annum. The stipend was decreed at last augmentation (which was in 1833) to be 18 chalders, half meal and half barley. But the teinds were exhausted before obtaining the stipend decreed. The present allocation bears 200 bolls, 5 stones, 2 lbs. meal, and 55 quarters, 4 bushels, 3 pecks, 1 gallon, and 1 quart barley, and L. 7, 19s. 8½d. money. This was farther reduced by an error discovered in one of the allocations. A surrender of the teinds was made in this instance, and now it stands 7 bolls, 2 stones, 9²/₁₀ lbs. meal, and 1 quarter, 6 bushels, 3 pecks, 1 gallon, 1¼ quarts, barley, and 5s. 7½d. money, instead of 20 bolls, 2 stones, 2⁵/₁₀ lbs. meal, and 5 quarters, 3 bushels barley, and 6s. 4d. money. The allocation was decreed final on 26th January and 16th February 1833, during a vacancy in the parish. If this matter be stirred again, it is to be remarked that no allowance was made in the modification for the difference between the Old Dumbartonshire measure, in which the valuation was made, and the new measure, in which the modification was made. This difference

is one-eighth on every boll of meal. Besides, somewhat more in the case of some of the farms would have been produced by a simple surrender of the teinds than has been by the calculations which have been made. The stipend in 1835, as the allocation now stands, was L. 226, 9s. 5d., without any allowance for communion elements.

Owing to the crowded state of the parish church, which is altogether too small for the population, a parish missionary has been employed for about two years, who regularly preaches on Sabbath, visits the sick, and has classes for religious instruction during the week. His preaching station is at Faifley. The place holds from 200 to 250 hearers, and is generally crowded to the door. His salary is L. 50, and has been paid by a private individual. There is an additional church now building by subscription at Duntocher, which is to contain 800 sittings. The principal heritors, with few exceptions, came forward in the most liberal manner in aid of this undertaking. Mr Hamilton of Barnes began the subscription with L. 100; and it is but justice to say, that he and the ladies of the family are ready to promote every good work. Mr Buchanan of Auchintoshan subscribed L. 100, and made offer of ground for the building. A site offered by Mr Dunn was preferred, who subscribed L. 200; Mr Buchanan of Auchentorlie also subscribed L. 100. Many others contributed liberally, both heritors and other inhabitants. In all, about L. 900 has been subscribed, and it is hoped that, as much additional will be contributed as, with the aid of the Church Extension Fund of the General Assembly, will leave the church, when completed, free of debt.*

* It must now be added, that the new church at Duntocher is finished. The cost of the erection, after deducting the drawback on wood and glass, was L. 1459, 1s. 2d. The amount of contributions to meet this expenditure, including L. 300 from the General Assembly's Church Extension Fund, was L. 1299, 12s. 5d., leaving a deficiency of L. 159, 8s. 9d. But as it was desirable that the new church should begin without any incumbrance, the treasurer, who was the minister of the original parish, gave up his claims for the balance, so that the managers undertook their charge free of debt.

The church was opened on Sabbath the 25th September 1836, and the Rev. John Pollock, who had been labouring in the district for more than two years as parish missionary, was ordained the minister on the 6th of October. Mr Pollock was translated to Baldernock parish on the 29th of March 1838, and the Rev. William Alexander, who is now minister of Duntocher, was ordained to the charge in October 1838.

The parish of Duntocher was disjoined *quoad sacra* from the parish of Old Kilpatrick by the Assembly of 1836. The inhabited part of the parish is about a mile and a half in length and three quarters of a mile in breadth, and its nearest extremity is nearly two miles from the original parish church. From a census taken by the late minister, the parish was found to contain 3336 inhabitants, of whom 1604 professed to belong to the Established Church. With the exception of three heritors' families, and three or four other families, all the population may be said to belong to the work-

There are three Dissenting churches. One of these is of the Original Burgher Associate Synod, capable of containing about 550. The minister's stipend is L. 90, with a house, and about five or six acres of glebe land. One is of the Relief, capable of containing about 600. The minister's stipend is L. 120, with a house and garden. And one of the United Secession, capable of containing about 670. The minister's stipend is L. 130, with a house, or an allowance of L. 20. The stipends are paid from seat-rents and collections. The names of the present incumbents, in the order in which the denominations have been stated, are Mr James Gardiner, Mr Hugh Crichton, Mr J. Russell, and all of them are respectable and good men.

The number of communicants at the parish church is about 700. The relative number of those who profess to belong to the Establishment, and of those who profess to belong to other denominations, according to a census taken in spring 1836, is as under; Establishment, 3349; Relief, 865; Secession, 785; Original Burgher, 272; Roman Catholic, 764; Episcopalian, 53; Baptist, 14; Methodist, 1; Reformed Presbyterian, 1; Unitarian, 1; Independent, 1; no persuasion, 17; total 6123. Total under twelve years of age, 1742; under seven years of age, 1139; total in the parish, 1163 families, 6123 individuals.

It may be remarked, in order to give a full view of the church

ing classes. The number of sittings in the church is 776, of which 712 are let. With the exception of about 40 all are let to parishioners. The seat rents are at very low rates, varying from 2s. to 4s., with the exception of 62 in the front of the gallery, which are let at 10s. each.

There is reason to bless God, that this new erection has prospered exceedingly. It is difficult to say how many persons who attended no church have been reclaimed. But from the fact of the original parish church having been gradually increasing in the numbers attending, and being now respectably filled, although a void was made in its attendance of 300 to 400 hearers, it is quite within the mark to say, that 200 at the least are now regular in their attendance at church, who were very seldom if ever in the house of God. This can be the more confidently affirmed, as neither the congregation in the new church, nor the increase in the old, have been drawn from the Dissenting congregations in the parish. One great advantage of increased accommodation and low priced sittings, has been, that a much larger number of young people and children have been brought to both churches than before. One of the greatest evils of high seat rents over all the country has been, that the number of seats taken, and the number of communicants on the roll, were nearly equal, so that no allowance was made for young people and children—a system fearfully calculated to increase the habit of forsaking the assembling in the house of God in the rising generation. Since the opening of the church 102 new members have been added to the roll of communicants. Two weekly classes for religious instruction were conducted by the late minister, and although confined to those above 14 years of age, the one was attended by about 120, and the other by 70 young persons. The present minister is equally industrious in his classes, and equally successful with his predecessor. It may be added, that a number of families now maintain family worship, in which this duty was entirely neglected before the opening of the new church.—(Feb. 1839.)

accommodation, that families belonging to the Establishment in the village of Yoker, amounting in all to about 28 souls, attend in Renfrew church; the number of whose sittings may be about 12; that families in Milton and the neighbourhood belonging to the Establishment, amounting in all to about 80 souls, and families belonging to Dissenters, amounting to about 120 souls, attend in Dumbarton; the sittings taken by both may be about 85.

The sittings taken by all the Dissenters residing in the parish, although this has not been so accurately ascertained as could be wished, yet cannot amount to more at the utmost than 900. This, however, does not give a full view of the congregations of the Dissenters, as each of them have members from other parishes.

The amount of the church-going population will then appear as follows: sittings in the parish church, counting them all occupied, 750; attending at preaching station, 200; sittings at Renfrew about 12; sittings in Dumbarton parish church about 34; sittings taken by Dissenters both in the parish and at Dumbarton, about 900; say that, of the Roman Catholics there is a church attendance on the average of 150, which is a large allowance; total of sittings, 2046.

If we double the above, this gives, according to the usual mode of calculation, the number of souls belonging to the families who attend a place of worship, which is 4092; and this leaves 2031 as the total number of souls belonging to families who attend no place of worship. This is a fearful state of things in a country parish. If we consider the manner in which the Sabbath is spent by men in general, who do not attend a place of worship, and also the amount of the influence of their example on those who do, in leading them, even on a Sabbath day, to conduct themselves in a way inconsistent with the services in which they have been engaged, it is impossible to enumerate all the evils of such a state of things, both for time and for eternity, both for the body and for the soul.

On this subject one remark is obvious. If it had not been for the exertions of Dissenters in such a parish as this, in supplying the lack of the Establishment, matters would have been much worse. For all that they have done in stemming the torrent of heathenism, they deserve the approbation of every man who is a lover of the Lord Jesus Christ.

Education—Schools.—The parish school is at Old Kilpatrick village. The endowed salary is L. 34, 4s. 4d., and the wages for reading are 2s. per quarter, and for reading, writing, and arithmetic, 2s. 6d. The wages may amount to L. 15 per annum, and the emoluments of the teacher, as session-clerk and treasurer to the

poor's fund, to L. 20 or L. 25 per annum. There are ten unendowed schools; one at Moss Wallach; one at Faifley; two at Duntocher; two at Old Kilpatrick; one at Dalmuir; one at Little-mill: one at Milton; and one at Kilbowie. Besides these, there are a few scholars taught to read by females at Duntocher and Faifley, who also teach them needle-work. The average number who attend the whole may be estimated at about 480 day-scholars, and 230 evening-scholars, making a total of 510. Most of the teachers can teach Latin and English grammar, practical geometry, and book-keeping; but there are few applications for more than the usual elementary branches. The average fee is about 3s. 6d. per quarter for reading; 3s. 6d. for reading and writing; and 4s. for reading, writing, and arithmetic. There are six Sabbath schools, but these are for religious instruction alone.

Literature.—There is a village library at Duntocher, of 430 volumes, and two Sabbath school libraries, one of 110 volumes, and another of 230 volumes. There is a village library at Faifley of 233 volumes, and one of the Sabbath school of 293 volumes. There is also a Sabbath class library at Old Kilpatrick of 150 volumes.

Friendly Society.—There is a friendly society at Duntocher and Faifley. The members are 208, who contribute 13s. a-year each. The allowance for a member who is sick, but not confined to bed, is 4s. 6d. a-week, and for one bedfast is 8s. After the first year, if the disease continue, and the man be unable to work, the allowance is 4s. 6d. a-week for life.

Poor and Parochial Funds.—The number of persons on the roll at present, with the aliment of each, is as under:

1 at 2s. per month	L.	0	2	0
2 - 2s. 6d.,		0	5	0
1 - 3s.,		0	3	0
8 - 4s.,		1	12	0
1 - 4s. 6d.,		0	4	6
14 - 5s.,		3	10	0
1 - 5s. 6d.,		0	5	6
15 - 6s.,		4	10	0
1 - 6s. 6d.,		0	6	6
1 - 7s.,		0	7	0
11 - 8s.,		4	8	0
3 - 10s.,		1	10	0
2 - 11s.,		1	2	0
1 - 12s.,		0	12	0
1 - 16s.,		0	16	0
1 - 17s. 4d.,		0	17	4
1 - 40s.,		2	0	0
65	L.	22	10	10
27	12 of the above are widows, who have 27 children in all.			
Total,	92			

The three who have the highest allowances are persons deranged in intellect: one of them in the Glasgow Lunatic Asylum.

To meet the above expenditure, and other occasional expenses, such as coffins for paupers, &c. there is an assessment, which varies from L. 250 to L. 300 a-year, one-half of which is laid on the heritors, and the other half on tenants and householders. There is also between L. 30 and L. 40 collected at the church door, which, after some necessary expenses being deducted, is paid into the poor's fund.

Houses Licensed to Retail Spirits.—There are 31 in the parish. Three of these are toll-houses, which is contrary to express act of Parliament, and 12 of them are in Old Kilpatrick village alone.

Fuel.—Coal is the prevailing fuel. It is chiefly brought from the neighbourhood of Glasgow by the canal, and for the last three years has been sold in the parish at 5s. per 12 cwt. Besides this, a good deal of Mr Dunn's coal is used, which is sold at 3s. for a measure, which would weigh about 14 cwt. Peats are used merely for kindling.

MISCELLANEOUS OBSERVATIONS.

The changes since the former Statistical Account are very great. The rental then is called L. 5000. The rental now is upwards of L. 12,000. Indeed, there was a period during the war when it must have been considerably more. The total number employed at manufactures, was then 1043: the number now is about 2400. The total population then was 2452: the population now is upwards of 6000. The smith and iron foundery, which employed 273 hands, has wholly disappeared, and in place of one of its factories, there is one of Mr Dunn's cotton-mills,—while of another of its branches at Old Kilpatrick village, there are no remains. The wool mill, which finished 1000 yards a-day, is superseded by a mill for cotton. The statute labour was then L. 63, 6s. 8d: it is now on an average L. 100. There was then one Dissenting church: there are now three. Inoculation for small pox was then generally practised: now it has been totally displaced by vaccination. Still there are a few cases now and then of natural small-pox, but generally mild.

Drawn up in 1836; Revised in February 1839.

PARISH OF NEW OR EAST KILPATRICK.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. ANDREW SYM, D. D. MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, &c.—THE two parishes of New or East, and Old or West Kilpatrick, occupy a large portion of that district of Scotland formerly called Lennox or Levenach—the field of the Leven. The etymology of Kilpatrick is plainly the Gaelic *cil*, a church or religious house, prefixed to the name of the patron saint of Ireland, to whom the church of Kilpatrick was originally dedicated. The tradition which points out the tombstone of this saint in the church-yard of Old Kilpatrick is rejected by antiquaries; but there is good reason to believe that he was born in that parish, near the Roman fort of Duntocher, which not improbably is the Nemthor of the early legends of St Patrick. *

Extent and Boundaries.—The greatest length of New Kilpatrick parish is $7\frac{1}{2}$ imperial miles; the mean length, 6 miles; the greatest breadth is $5\frac{1}{2}$, and the mean breadth $3\frac{1}{2}$ miles; giving a superficial extent of 21 square miles, or 13,440 imperial acres. These measurements are taken from Wood's map of Dumbartonshire; but, according to the plans of the several estates, the extent is only 12,049 imperial acres. It is bounded on the north, by the parishes of Strathblane and Killearn; on the west, by Old Kilpatrick; on the south, by Renfrew and Govan; and on the east, by the Barony of Glasgow, Cadder, and Baldernock.

Topographical Appearances.—The Kilpatrick hills or braes, disjoined from the Campsie Fells by a gap of three or four miles in width, making way for the Blane with its beautiful strath, and for the black-watered Allander, lie partly in the parish. These hills range from east to west, terminating abruptly with Dumbuck, near Dumbarton. Their greatest height is about 1200 feet above the level of the sea; and from them the parish slopes on one hand with a southern exposure towards the Clyde, and on another

* Transactions of Society of Scottish Antiquaries, Vol. ii. Part i. p. 213.

towards the valley of the Allander and Kelvin in the south-east, the descent being broken by a succession of undulations, which diminish in elevation as they approach the rivers. This undulating surface gives to the landscape a variegated and interesting character. It is thickly set with swelling knolls, generally accessible to the plough, and actually under cultivation, but many of them so steep, as to render ploughing difficult. If more of these knolls were wooded, it would contribute much to ornament, at no ultimate loss to the proprietors.

Meteorology.—No register of the weather has been kept in the parish for many years, so that we have few meteorological observations to record. A singular phenomenon occurred in the summer of 1832, which was carefully investigated at the time, and the fact fully ascertained. On the 13th June of that year, there fell near Castlehill, a shower of *fish*, consisting chiefly of herring-fry. Some of them were described as being of the size of large minnows; but the largest that I saw were about two inches in length. Upwards of 100 were found huddled together by a road side; others were probably washed away by the stream that was speedily formed; and some were seen scattered over the neighbouring field. Three days after the occurrence I picked up a few. By this time they were much disfigured; but still it was not difficult to discover what they were; and some which I saw preserved in spirits left no doubt of their being herring. Castlehill is three or four miles distant from the Clyde, from which they had probably been caught up by a whirlwind, and carried hither through the air. They fell amidst a very heavy shower of rain, accompanied with a peculiar rushing noise, which was heard at a considerable distance.

Hydrography.—Dugalstone loch is a considerable sheet of water, of artificial collection. It lies within Dugalstone pleasure-grounds, and contributes much to the beauty of that once highly ornate, but now neglected seat. It covers 23 Scots acres. The pleasure grounds of Kilmardinny likewise contain a small loch, surrounded by trees and ornamental shrubbery; and abounding in pike, eel, and perch. It contains about 8 Scots acres. St German's loch is somewhat larger. It is a good locality for the botanist, containing several water-plants not everywhere to be found. *Germanus* was the companion of St Patrick in his mission to Ireland; and from him it probably is that this loch derives its name. *

* Transactions of Society of Scottish Antiquaries, *ut supra*.

The *Kelvin* is hardly of size enough to be dignified by the name of a river, but in Scottish dialect comes under the description of a *water*. It rises in the parish of Kilsyth; and after a south-westerly course of about 16 miles, falls into the Clyde at Partick, two miles below Glasgow. Through the greater part of its course it is a sluggish, uninteresting stream; but on reaching Garscube it changes character. The current is now rapid; the banks are richly wooded; below Garscube House they are bold and precipitous; and there are in the Lowlands few finer rivers than the Kelvin, as it winds through these beautiful grounds.

The *Allander* is a smaller stream, but not less useful. It is the feeder by which the Kelvin receives the waters of the reservoirs on which the great flour-mills at Partick and Garscube depend during the dry season of the year; and before joining the Kelvin, it supplies the extensive machinery at Clober Bleachfield, and various other works.

Geology.—Of the great coal-basin, near the centre of which Glasgow is situated, the Kilpatricks occupy a large part of the north-western quadrant; the arch, or outer border being overlaid with trap, of which the hills consist. At Garscube, in the south-eastern corner of this parish, where coal is at present wrought, the same beds are found as at Glasgow, dipping to the south-east at an angle of 8° . In digging for it, the strata met with are the usual alternations of blaize, sandstone, clay-iron ore, and grey-plies. A great way beneath this lies another coal bed; the dip of which being in the same direction, at an angle of 14° , it approaches the surface towards the north and north-west, and is wrought at Lawmuir and Castlehill, where it is found at a depth of about 30 fathoms. The strata met with here are successive alternations of blaize and ironstone, the latter from 3 to 6 inches in thickness; and immediately over the coal is a valuable bed of limestone 3 feet thick. Farther to the north, rocks of sandstone and conglomerate appear; and still farther in the same direction are the hills, consisting of greenstone, amygdaloid, trap-tuff, wacke, and basalt, the latter of which occurs near Craigton in a very perfect prismatic form.

The *Diluvial deposits* are chiefly a stiff red and bluish clay, sand and gravel, broken up into elongated swells. The range of these swells is generally from north-west to south-east; and it may be observed, that very frequently the north-western acclivity is abrupt, while in the opposite direction, it is more lengthened and gentle.

In the clay, numerous boulders occur, varying from the size of a pigeon's egg to many tons in weight. These boulders consist chiefly of the different kinds of trap; but many, even of the largest, are of granite, gneiss, and mica-slate rocks, which are not found *in situ* at distances of less, some of them than 25 and others 70 miles, in a north-westerly direction. Blocks of limestone occur in like manner, the surface of which frequently presents a considerable degree of polish, with occasional deep irregular scratches, as if a heavy body had been forcibly moved over it.

The *organic remains*, though almost exclusively confined to the vegetable kingdom, are numerous and interesting. They consist chiefly of plants, which are now found only in insular situations, and in climates approaching to tropical heat; such as tree-ferns, gigantic equisetæ, calamites and palmaceæ.

Various strata of clay-iron ore occur, alternating with sandstone and blaize. One of these, which crops out on the banks of the Kelvin at Garscube, was wrought some years ago, for the purpose of smelting: but the ore was not found in sufficient quantity, or sufficiently rich to render the working of it profitable.

Mineralogy.—The Kilpatrick hills present a fertile field for the researches of the mineralogist, containing a great variety of the zeolite family. A splendid collection of these minerals has been presented to the Hunterian Museum by Dr Couper, Professor of Natural History in the University of Glasgow. They consist of prehnite, stilbite, Heulanite, Thomsonite, Laumonite; cross-stone both single and crossed; analcime, mesotype, and Eddingtonite. The student will nowhere find a more favourable opportunity of becoming acquainted with this beautiful family of minerals, than this collection presents. Many years ago, a vein of sulphate of barytes was wrought in these hills, in the expectation that lead might be extracted from it; and a mine had been driven 30 yards into the hill-side, before those engaged in the undertaking were convinced of its futility.

Soil.—The prevailing soil is clay, over a bottom of hard and impracticable till. The stratum of fertile clay is generally no deeper than the plough goes; and the retentive subsoil, preventing the escape of the surface water, renders the land wet and claggy. Along the course of the Kelvin, the Allander, and some other streams, there are several hundred acres of deep rich loam; and some knolls of sand and gravel are covered with a light dry soil.

On the high grounds there is a good deal of moor, bog, and peat-moss.

Botany.—In his *Flora Glottiana*, Mr Hopkirk frequently refers to places in this parish as producing rare, or not very common plants; among which may be noticed *Achillea tomentosa*; *Hieracium aurantiacum*, though probably not native; and *Cicuta virosa*, said to be rare in Scotland, but abundant here. To these may be added *Pyrola secunda*, which has escaped Mr Hopkirk's observation, but is found on the Kilpatrick hills.

Of *Forest trees* the beech seems most congenial to the soil, and attains the greatest size. At Balvie there is an avenue of tall and handsome beeches, none of them remarkable for size, taken singly, but worthy of notice for the uniformity of height and girth of so great a number. A much larger than any of these grows at Dugalstone. At three feet from the ground, it measures 16 feet in circumference; and its branches cover a space of 22 yards diameter. Other forest trees are found of considerable size, and the soil seems favourable to the fir tribe. A Scotch fir was recently cut at Garscube, which measured upwards of nine feet in girth at three feet from the ground, and contained 155 solid feet of timber: and two more growing at Balvie are of nearly as large a size. At Dugalstone there are many large and beautiful spruce and silver firs. Ashes, elms and sycamores, thrive well; but the oak is preferred for new plantations, though we have none of great size or age. A walnut tree at Mains measures $11\frac{1}{2}$ feet in girth.

Zoology.—In this department we have here most of those animals which are common to the Lowlands of Scotland, together with some which belong to mountainous regions. Game is abundant, yet not so much so as to injure the farmer. We are occasionally visited by the roe-deer, breaking away from his haunts in the woods of Buchanan. Black-game and grouse are numerous in the muirland parts of the parish, partridges in the fields, and pheasants in the plantations. The woodcock too is found, but more rarely. Of water-fowl we have the wild-geese and wild-duck, the sheldrake, widgeon, teal, and various divers. Besides these, under the head of game, for we do not pretend to any scientific arrangement, we have the golden and the grey plover, the curlew, land-rail and water-rail, the snipe and the heron. Of birds of prey we have the kite, or salmon-tailed glade, the common buzzard, the white hawk, large gray hawk, the snipe and sparrow hawks, and what is here called the hunting-hawk. Of birds of

passage we have the common varieties of the swallow kind; the king-fisher, the goatsucker, the fieldfare, and redwing. The missel-thrush has of late years taken up his abode with us; the starling and water-ouzel are found, though not numerous. The goldfinch and golden-crested wren, the least and most beautiful of our Scottish birds, shall end our enumeration of the feathery race, for we need not notice those species that are everywhere to be found. There are foxes in the upper part of the parish; but the fewer, that we have no fox-hunter. Of the weasel tribe we have the polecat, the otter, the stoat, and the common weasel. The pine-martin has been shot in the woods of Balvie; and the brown squirrel has been seen at Garscube; but each of them only in a single instance. The black-rat, as elsewhere throughout Scotland, has disappeared before the large brown rat of Norway.

II.—CIVIL HISTORY.

Date of Erection.—As a separate parish, New Kilpatrick is of comparatively modern date, having been disjoined from Old Kilpatrick in 1649. The disjunction is *quoad omnia*.

Registers.—The parochial registers are imperfect, part of them having been destroyed in 1797, at the first balloting for militia. On that occasion a considerable mob assembled, which was not dispersed till troops arrived from Glasgow, by whom several prisoners were made.* Some of the mob having entered the school-master's house, seized on the register of baptisms, and tore out a number of the leaves, that they might not be evidence against them of their liability to serve. The date of the earliest entry is 6th January 1691; and from the 8th December 1755 the series is complete. There are two volumes of records besides those now in progress.

Ministers.—The first minister of the parish, Mr Walter Rollock, was inducted in December 1650, and died only a month after. He was succeeded by Mr Robert Law, who is known as the author of “*Memorials, or the memorable things that fell out within this island of Brittain from 1638 to 1684.*” Of these memorable things the chief, in Mr Law's estimation, seem to have been deeds of witchcraft, portentous appearances, and prophetic warnings; with the narration of which a great part of his volume is occupied. It appears from the records of the presbytery of Dumbarton, that Mr Law was *called* to be minister of the parish in 1652; but was refused induction by the presbytery, on the ground of his not being

* This affair is known by the name of the Battle of Garscube.

qualified for the ministry. He seems to have served the cure notwithstanding; and in May 1654, he was, without further trials, or any deed of induction, received into fraternity as a member of Presbytery; and his name is found in the *sederunts* down to 4th September 1660. After the restoration he was *outed* for non-conformity; but Mr Sharpe, his editor, in the short account of his life prefixed to the "Memorials," states that, though he did not subscribe the indulgence, yet he returned to his charge on the passing of that act; and he quotes a minute of council, from which it appears that, in 1679, on the petition of Andrew Colquhoun of Garscadden, and Hugh Crawford of Cloberhill, in name of the people of Easter Kilpatrick, Mr Law was continued minister of the parish. We know not how to reconcile this statement with the evidence of the Presbytery records, which show that Mr William Duncan, a conformist, was minister of this parish from the year 1666 to the date of the Revolution. The ministers in succession to him have been—Mr John Dougal, admitted 31st December 1690, died 23d December 1712; Mr John Logan, admitted 15th September 1715, died 18th January 1730; Mr Andrew Gray, admitted 18th March 1731, died 10th February 1776; Mr James Carrick, admitted 31st October 1776, died 28th February 1787; Mr George Sym, admitted 20th December 1787, died 29th May 1835. The present incumbent was ordained assistant and successor to his father, 27th September 1821.

Principal Families.—At an early period the family of *Galbraith* had extensive possessions in Lennox, and William Galbraith of Gartconnel is noticed as a person "of good account" in the time of David II. about the middle of the fourteenth century.* Gartconnel is now known only as a farm belonging to Mr Gordon of Dugalstone; but the site of an ancient castle or keep is still marked out by the surrounding fosse.

Douglas of Mains.—Janet Galbraith, daughter and co-heiress of James, or perhaps rather of the above William Galbraith of Gartconnel, married in 1373 Nicholas Douglas, fourth son of James, first Lord of Dalkeith, (grandson of William, Lord of Douglas, the companion in arms of Wallace.) By this marriage he acquired the estate of Mains, and other considerable possessions in Lennox; and from him the present proprietor is descended in the fifteenth generation. Malcolm Douglas of Mains, the eighth in descent from Nicholas, is known in the History of Scotland as

* Crawford, *Peerage*, p. 159, note.

the associate of Crawford of Jordanhill in the taking of Dumbarton Castle in 1571; * and likewise as having been implicated, by the doubtful evidence of Edmonstone of Duntreath, in the raid of Ruthven, and other transactions connected with that affair; in consequence of which he was beheaded at Edinburgh in 1584, along with his father-in law, Cunningham of Drumwhassil. † This seems to be the person whom Buchanan, (Hist. Lib. xx.) erroneously calls *Robert Douglas*.

Colquhoun of Garscadden and Killermont.—This family, to whom nearly a third of the parish now belongs, is descended from John Colquhoun, second son of Robert, sixth laird of Camstradden. He is said to have distinguished himself in the battle of Pinkie, 1547. His great-grandson, William Colquhoun, writer in Glasgow, acquired the lands of Garscadden by purchase in 1655, and was succeeded by his eldest son Andrew, an eminent merchant in Glasgow. Lawrence, second son of Andrew, purchased the estate of Killermont in 1746; and left an only child Agnes, who married John Campbell of Clathic in Perthshire. Their son Archibald, who assumed the name of Colquhoun on becoming presumptive heir to Garscadden, was educated for the Scottish Bar; and rose to distinction in his profession, having been many years Lord Advocate, and afterwards Lord Register of Scotland. His son, the present John Campbell Colquhoun, Member of Parliament for the Kilmarnock burghs, on the death of Miss Jean Colquhoun in 1821, succeeded to the estate of Garscadden, and the representation of the elder branch of the family.

The *Campbells of Succoth* are believed to be cadets of the Ardkinlas branch of the house of Argyle. They were settled in Dumbarton before the Union of the Crowns; and in 1616, Robert Campbell purchased Succoth, in the parish of Cardross. In the reign of Charles II. John Campbell of Succoth, Director Depute of Chancery, acquired the estate of Garscube; since which time, the family have added to their possessions the estate of Craigton, in this parish, and various other lands in the counties

* This was not the first time that the Castle of Dumbarton was taken by a Kilpatrick laird. The lands of Balvie were formerly possessed by a family of the name of Logan; and in the Privy-Seal Record, 16th July 1526, we meet with the following entry, which has been obligingly furnished us by John Riddell, Esq. Advocate. "Respette to John Logan of Balvey, Walter Galbrathe" and others, "for yaire tressonable assieging, taking and wytholding of the King's castle and fortalice of Dumbartane, frae his servandis kepairs yerof, and for uyeirs crimes, tresone, lese majesti, slachtris," &c.

† For this and some of the following genealogical notices, we are indebted to James Dennistoun of Dennistoun, Esq. Advocate.

of Lanark and Argyle. This John was the law agent of Archibald, ninth Earl of Argyle, whom he attended on the scaffold at his execution, and received from him a silver kylevine pen-case, which is preserved as an heir-loom in the family. * His great-grandson, the late Sir Islay Campbell, Bart. Lord President of the Court of Session, has left a high name among the law authorities of Scotland, and the virtues of his private life will not soon be forgotten. He is thus noticed by Mr Brunton in his Account of the Senators of the College of Justice: " Sir Islay Campbell of Succoth, Baronet, Lord President, eldest son of Archibald Campbell of Succoth, one of the Principal Clerks of Session, by Helen Wallace, heiress of Ellerslie, was admitted advocate 11th January 1757. He obtained very extensive practice at the Bar, there being scarcely any cause of importance in which he was not engaged or consulted; and many of his written pleadings are still held as perfect models of brevity, force, and elegance. He was nominated Solicitor-General in 1783, and was the following year constituted Lord Advocate, and soon after chosen representative for the Glasgow district of burghs to Parliament, where he took an active share in all the important transactions of the times. The University of Glasgow conferred upon him the degree of Doctor of Laws, and he held also for some time the office of Lord Rector. He was promoted to be President of the Court of Session, 14th November 1789, in the room of Sir Thomas Miller. He was placed at the head of the commission of Oyer and Terminer, issued in the year 1794, for the trial of those accused of high treason in Scotland, at that disturbed period, and was highly commended by the English lawyers for the manner in which he acquitted himself in that capacity. He held the office of Lord President for upwards of nineteen years, and resigned in 1808, after having discharged its arduous duties with the utmost ability, integrity, and zeal; and on the 17th of September, the same year, was created a Baronet. Being then in the full enjoyment of all his mental faculties, he was afterwards chosen to preside over two different commissions, appointed to inquire into the state of the Courts of Law in Scotland, which he conducted with his accustomed industry and talent. After his retirement from the Bench, he resided principally at his estate of Garscube, where he kept his active mind continually engaged in

* This could not, therefore, be the kylevine pen-case which the Earl's descendant made use of at his interview with Jeanie Deans.—Heart of Mid-Lothian.

various pursuits connected with literature and agriculture, and in receiving visits from his extensive acquaintance both in England and Scotland. His Lordship died on the 28th of March 1823, in the eighty-ninth year of his age." He was succeeded in his estates by his son, the present Sir Archibald Campbell, Bart., who sat for many years as a Judge of the Courts of Session and Justiciary by the title of Lord Succoth, which offices he resigned in 1825.

Glassford of Dugalstone.—The lands of Dugalstone were formerly possessed by a family of the name of Graham, of the Knockdolan branch of the Montrose family, from whose heirs they were purchased in 1767, by John Glassford, Esq. one of the most eminent and respected merchants of his time. His mercantile enterprise is thus noticed by Smollett in his popular work *Humphry Clinker*, in which, under his assumed character, he says, "I conversed also with Mr G—ssf—d, whom I take to be one of the greatest merchants in Europe. In the last war, he is said to have had at one time five-and twenty ships, with their cargoes, his own property, and to have traded for above half a million Sterling a-year." Mr Glassford was a gentleman of enlightened understanding and liberal mind; of prompt judgment and active habits, which enabled him to conduct with ease a great variety of affairs; a generous patron of the arts, and a principal promoter of all undertakings which had the advantage of the community in view. He died in 1783, and was succeeded by his eldest son Henry, who inherited, along with the possessions, much of the character of his father. He represented the county of Dumbarton in part of two Parliaments; and during the troublesome times that followed the first French Revolution, contributed greatly to the exciting and maintaining a spirit of loyalty and patriotism in this district.* On his death in 1819, the estate of Dugalstone devolved on his brother-consanguinean, the present James Glassford, Esq. Advocate, who is favourably known as author of a *Treatise on the Law of Evidence*, and other literary productions; and more widely as one of the most efficient members of the late Irish Education Commission, in which capacity he distinguished himself by his consistent advocacy of Protestant principles. Mr Glassford has lately transferred his right to the estate of Dugalstone to his nephew and heir-apparent, Henry G. Gordon, Esq.

* As an instance of his munificence, we may mention, that for many years he was in the habit of giving annually 150 carts of coal to the poor of this parish, with a like benefaction to the parish of Baldernock.

Sprewl Craufurd of Cowdonhill.—The Craufurds are believed to have been from a very remote period in possession of the estate of Clobberhill; but we have not been able to trace their history farther back than the beginning of last century, when it was conveyed by Hugh Craufurd to John Sprewl of Cowdon, in Renfrewshire, who had married his only child Isabel. This John Sprewl, in the year 1716, made a new deed of entail, by which he destined the lands of Clobberhill and Drumchapel to the heirs-male, and failing them, the heirs whatsoever of this marriage, binding them to assume the name and designation of Sprewl Craufurd of Cowdonhill. On his death without heirs-male, the estate devolved on the issue of the marriage of his eighth daughter Agnes with — Hunter, Esq., whose grandson, Andrew Hunter Sprewl Craufurd, is the present proprietor; and as he has hitherto no male issue, the presumptive heir is the late Chief Baron of the English Exchequer, Sir William Alexander, Knight, grandson of the eldest daughter of the entailer.* Within these few years, there was in the possession of this family a curious heir-loom—a silver spoon, the circular mouth-piece of which is not less than three inches in diameter. Inscribed on it are the terms of its tenure, according to which the title of the present holder cannot be disputed.

“ This spoon I leave in legacy,
To the maist mouthed Craufurd after me. 1480.”

Of a later date are the following lines.

“ This spoon, you see,
Is left in legacy;
If ony pawn’t or sell’t,
Cursed let him be.”

The Duke of Montrose has a valuable estate in the parish, part of the ancient barony of Mugdock; and the Earl of Glasgow, as heir-at-law to the Crawford estates, to which, however, his title is at present under dispute, has lately succeeded to the lands of Knightswood; but it would be out of place to attempt any account of these Noble families.

Kilpatrick Lairds.—A century or more ago, the Kilpatrick lairds were noted for their convivial habits, and many anecdotes of their reckless revelry are current in local tradition. Their social meetings were often prolonged for days together, with little intermission from hard drinking. On one of these occasions, the laird of Garscadden was observed to sit very quiet for some time, and his countenance at length to undergo a change; of which one

* Sir William succeeded to the estate on the death of Mr Crawford in 1837.

of the company took notice, saying, "Is na Garscadden looking unca gash."—"And so he may, said another, for he has been with his Maker this half hour : but I did na like to disturb the conviviality of the company by saying ony thing about it." This anecdote has been introduced by Mr Galt into one of his tales, and is not unworthy of preservation as indicating the manners of the age. In latter times, the gentry of the parish have acquired a more honourable distinction in the profession of the law, and as representatives of the county. We have already noticed Sir Islay Campbell of Succoth, Bart. and his son, Sir Archibald Campbell, as Senators of the College of Justice, and Archibald Colquhoun of Killermont, Esq. as Lord Advocate of Scotland. And as Member of Parliament we have had Henry Glassford of Dugalstone ; Lord Advocate Colquhoun ; the late John Campbell, younger of Succoth, whose early death deprived us of a much respected and very promising country gentleman ; and John Campbell Colquhoun of Garscadden and Killermont, an accomplished scholar, and an eloquent advocate of education and religion. By these gentlemen the county of Dumbarton has been represented during more than twenty of the years of the present century.

Antiquities.—To the antiquary, the parish presents little that is interesting, except what arises from the *Wall of Antoninus*, which crossed it, at its widest part, from east to west. The description given of this wall by Gordon in his *Itinerarium Septentrionale* is in a great measure applicable to its present state. The "*forts* at Castlehill and New Kilpatrick," the "*ditch* running up the hill at Ferguston," and the "*causeway* at New Kilpatrick" are still nearly in the condition he describes. Two stones dug from the ruins of these forts, and noticed by Gordon, the one as the *largest*, and the other as the *noblest* Roman stones ever found in Scotland, are preserved in the Hunterian Museum of the University of Glasgow. A few years ago, another stone was dug up near Castlehill, and presented by Mr Glassford, the proprietor, to the same institution. It is a votive tablet, dedicated to the rural gods, which may fairly be interpreted, the fairies of Britain. The height is $3\frac{1}{2}$ feet ; the breadth of the base 16 inches ; and the thickness 10 inches. It is in excellent preservation, and the inscription, which we subjoin, is distinctly legible.—CAMPESTRIBVS ET BRITANNI Q P SETIVS IVSTVS PREF COH IIII GAL V. SLL. M.

On the farm of Dasholm, near Garscube, a barrow or tumulus has recently been discovered, and in part opened up.

Hitherto this mound, though sufficiently conspicuous and evidently artificial, had attracted little observation, the curiosity of any chance inquirer being satisfied by the traditionary information of its being a court-hill, one of those eminences on which courts of justice were held in the days of feudal jurisdiction. But, a short time ago, the farmer, partly with the view of clearing his field of an incumbrance, and partly of obtaining soil to top-dress other fields, set about removing the mound, and had not proceeded far in his operations when he came upon a narrow flight of steps leading upwards from the level of the field, not to the centre of the tumulus, but towards a point in the radius, distant about one-third of its length from the outer extremity. This stair being followed six or seven paces inward, was found to terminate in a flag-stone, on which some ashes or cinders lay, and which emitted a hollow sound on being struck with the tools of the workmen. It was removed, and beneath it there was discovered a narrow oblong trough or cell, walled with stone on every side. In this, several fragments of armour were found, among which were apparently the visor of a helmet, the head of a spear, and the blade of a sword, the first being of copper, and the two last of iron. Besides these, there were what may have been a spade or shovel, much turned up at the edges, two picks of a small size, and several other articles, the purpose of which has not been guessed—all of iron. The whole of them are in the possession of the farmer. There were no bones discovered, and the stone-work seemed to extend no farther than has been described. The removal of the tumulus, however, has not been continued, and probably other remains of antiquity may yet be found, as very little progress has hitherto been made in opening it up.

Ruins at Drumry.—At Drumry, near Garscadden, are some ruins, said to be those of a chapel, which there undoubtedly was at that place; but which have every appearance of being part of a keep or peel; what now remains being a patched tower, overhanging a steep bank. At a period considerably remote, the lands of Drumry belonged to a branch of the Callendar family; and Pitscottie notices a Sir Robert Livingston of Drumry, Lord Treasurer of Scotland, as having been beheaded at Edinburgh in 1447, in consequence of his being implicated in the charges against Sir Alexander Livingston of Callendar, Governor of James II. during his minority. Another Sir Robert Livingston, of Easter Wemyss and Drumry, was killed in the battle of Flodden, 1513. His daughter,

Margaret, married Sir James Hamilton of Fynnart, who received from James V. a grant of the lands of Drumry, which had probably escheated to the Crown in default of heirs-male. Sir James exchanged them in 1528 with Lawrence Crawford, for the lands of Crawford-John in Lanarkshire, by which means they came into possession of the Kilbirney family, who took from them the title of Barons of Drumry. This Lawrence Crawford is said by Chalmers,* somewhat inaccurately, to have founded a chapel here, dedicated to the Virgin Mary. He was not the founder of the chapel; for there is mention of it in the deed of conveyance by which he became possessed of the estate; and a notice of the chapel-lands of Drumry is met with in 1476. Crawford says † more correctly, that Lawrence Crawford founded a *Chaplainry* in the little church of Drumry, of his own patronage; it being a usual practice with men of wealth to dedicate private altars in churches to their favourite saints, and to provide for their service by liberal endowments. This chaplainry at Drumry was endowed with the lands of Drumchapel, and other considerable possessions, among which were the lands of Jordanhill in Renfrewshire.

Lurg.—At Lurg, on the estate of Mains, there was another small chapel, of which few memorials now remain. The place where it stood is pointed out by the name *Chapel Couch*; and in the tradition of the neighbourhood the auld kirk is still spoken of. There was a cemetery attached to it, and till within these thirty years several tombstones remained. These are now all removed, with the exception of one, which is covered with a few inches of soil, and is passed over by the plough. It is a rude unpolished stone, without date or inscription.

Modern Buildings.—Of modern buildings the most worthy of notice is Garscube House, the seat of Sir Archibald Campbell of Succoth, Bart. It is in the old English manor style, and is a very elegant building, highly creditable to the architect, Mr Burn of Edinburgh. It was built in 1826-27.—Another handsome house, in the same style, has lately been erected at Clober for Alexander Dunlop, Esq. Advocate, planned by Mr Baird of Glasgow.—Killermont House, the seat of Mr Colquhoun, M. P., is large and commodious. The modern part of it, forming the south front, was built about the year 1805.—At Garscadden; at Balvie, the seat of James Macnair, Esq.; and at Kilmardinny, lately purchased

* Caledonia Vol. iii. p. 904, note.
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† Peerage, p. 160.
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by William Brown, Esq. merchant in Glasgow, there are good substantial houses. Garscadden-gate was formerly much visited by idlers from Glasgow and Paisley; but it is now divested of the fantastic ornaments which constituted a great part of its attraction. It is, however, still worthy of a visit, being an elegant Gothico-castellated structure. The church is a neat and commodious place of worship, with little attempt at ornament. The material employed in all of these buildings is freestone, which is abundant in the neighbourhood.

III.—POPULATION.

In the records of the Presbytery of Dumbarton of the year 1653, there is a statement of the number of persons on the examination rolls of the several parishes within its bounds. In this parish the number was 750; which, supposing the rule to hold good that two-thirds of the examinable persons are equal to half the population, gives 1000 as the number of inhabitants at that date.

According to Dr Webster's tables it amounted in the year 1755 to	1390
By the Government census of 1801 it was	2312
1811,	2608
1821,	2530
1831,	3010

Of the latter number 1610 were males, and 1480 females; 1675 resided in the Dumbartonshire part of the parish, and 1415 in Stirlingshire. The increase has taken place chiefly in the village of Milngavie (written, as it is pronounced, Millguy, in the former Statistical Account,) and has been caused by the establishment of a cotton-factory and a calico print-work. It has not, however, been confined to this village, but has been general over the parish; and is to be attributed to the prosperous state of trade and, till lately, of agriculture. Of the inhabitants of the parish, 1162 * reside in Milngavie, and the remaining 1928 in the country, or in small hamlets.

Births, &c.—The yearly average of registered births for the 11 years preceding 1835 is 53; and of proclamations for marriage, 25.6. Neither of these numbers, however, can be relied on for statistical purposes. The number of proclamations does not quite correspond with the number of marriages; for sometimes the banns are published without being followed by marriage; and more frequently marriage takes place without publication of banns. The

* This applies to the year 1831, since which time the population of Milngavie is believed to have increased by 150 souls; and that of the parish to about 3250 in all.

number of births is still less to be relied on, for very few of the Dissenters are at the pains to register. We can therefore obtain only an approximation from the proportion of Dissenters to the adherents of the Established Church; the latter being required to register before obtaining baptism for their children. This proportion gives 89.3 as the yearly average of births for the last three years. We have no public register of deaths; but a private list kept by the grave-digger gives 71, as the average number of *burials* during the same period. This, however, is considerably above the average of *deaths* within the parish; for, owing to the neighbourhood of Glasgow and other circumstances, more funerals come from other parishes than leave this. For instance, of the 97 burials in 1834, 22 * were from other parishes, while only *four* persons are known to have been carried elsewhere for burial. The average of these years is likewise increased by there having been 8 burials in consequence of cholera in 1832, and 6 in 1834. Making allowance for these circumstances, the yearly average of deaths will be found to be about 60, or in the proportion of *one* to 52.8 inhabitants. †

Table of burials in the years 1832, 1833, and 1834.

Years of age.	1832.	1833.	1834.
Under 1,	12	17	23
From 1 to 2,	1	6	12
2 10,	5	3	16
10 20,	3	5	3
20 30,	5	6	6
30 40,	5	2	6
40 50,	3	3	8
50 60,	3	5	7
60 70,	8	7	5
70 80,	5	2	5
80 90,	3	5	6
90 97,	2		
Total,	55	61	97

Classification of Ages.—Of the inhabitants of the village of Milngavie, there are,

Under 15 years of age,	460
Between 15 and 30,	320
30 50,	238
50 70,	111
Above 70,	33

Total, 1162

The number of unmarried men, bachelors, and widowers, above 50 years of age, is 6
women, spinsters and widows, above 45, 52

We have not the means of extending these particulars to the other parts of the parish.

* This again is much above the average, which may be above *twelve*.

† On a medium population of 3170.

The number of families, giving an average of 5.27 persons to each family, is	567
inhabited houses,	442
uninhabited houses,	9

In the parish, or belonging to it, there are 4 persons insane ; 4 fatuous ; 2 blind ; 1 deaf ; and 1 deaf and dumb. There are 17 proprietors of land of the yearly value of L. 50 or upwards ; and 1 beneath that value. We have 6 or 7 resident families of independent fortune.

Habits, Circumstances, &c.—The habits of the people are no way peculiar. There is a growing taste for neatness and cleanliness in personal appearance and domestic arrangements. The comforts and advantages of society are enjoyed in a very considerable degree ; and, were it not for the depressed state of agriculture, all classes would have reason to be satisfied with their condition. Oatmeal, both in the form of porridge and of cakes, potatoes, milk, and cheese, barley-broth with butcher-meat, or herring, are the ordinary food of the peasantry. Wheaten bread, butter, tea, and coffee, are in more common use with the villagers. The circumstances of the latter class, employed chiefly in cotton-spinning and calico printing, have been very prosperous for some years past ; but contentment does not always accompany prosperity ; and during the year 1834 we had very serious disturbances at Milngavie and Dasholm, in consequence of a general *strike* by the united printers. This attempt at dictating to their masters, as uniformly happens where the latter have resolution enough to resist the demands of the Unionists, has entirely failed of success, and has been the occasion of a great number of the printers being deprived of their employment, by the introduction of hand-loom weavers and other operatives into their places.

Character of Inhabitants.—The inhabitants are intelligent and shrewd in the ordinary affairs of life, and many of them possess no small share of acquired knowledge. The ancient religious character of the Scottish peasantry is scarcely maintained among us ; and, of our villagers especially, there are numbers by whom religious ordinances are much neglected. In general, however, religion has a hold of the minds of the people ; many of them are well read in their Bibles ; and from not a few houses the morning and evening sacrifice of family worship is still offered up. The chief stain on their moral character arises from the vice of intemperance. Till the reduction of the duty on whisky, smuggling was carried on to a considerable extent, but is now unknown

among us ; an improvement which is fully counterbalanced by the increase of *drunkenness* from the cheapness of ardent spirits.

IV.—INDUSTRY.

The following Table is constructed from the Government census of 1831.

Division of Parish.	No. of males employed in agriculture.				Males employed in manufactures.	Males do. in retail trade or handicraft.	Capitalists, profes. pers. or educ. men.	Labourers not agricultural.	Males not inc. in preceding descrip.	Number of servants.
	Farmers.	Cottars.	Farm-servants.	Total.						
Dumbartonshire.	35	6	100	141	42	69	8	141	14	18
Stirlingshire.	10	2	47	59	145	71	12	30	12	45
Total.	45*	8	147	200	187	140	20	171†	26	63

Agriculture and Rural Economy.—The extent of arable land, either regularly or occasionally in tillage, is calculated to be 6000 Scots acres; and about 2500 Scots acres remain constantly waste, or in pasture. Of these, 800 acres may be capable of cultivation; but it is very questionable whether the application of capital to their improvement would be profitable. None of the parish is in a state of undivided common. There are 600 Scots acres under wood, of which not more than to the extent of 3 or 4 acres is natural. Fir, beech, and in recent plantations, oak, are the most common of our cultivated trees. Till of late, little attention was paid to forest management, the trees being allowed to grow up as they might, without pruning or thinning. The proprietors are now more sensible of the importance of this branch of rural economy, and begin to plant more extensively, and to bestow more care on the young plantations.

Rent of Land.—The average rent of arable land is L. 1, 14s. 6d. per Scots acre; but this includes a deal of inferior land in the higher parts of the parish. In the lower parts, from L. 2 to L. 2, 10s. is a common rent, and some is as high as L. 3 per Scots acre. On pasture farms, the average rate of grazing is reckoned to be L. 3 per ox or cow; and 8s. per ewe or full-grown sheep. On low pastures, where milch cows are taken in to graze, it is usual to receive L. 5 per cow for the season.

* The total number of farms in the parish is 70; but of these, several are occupied by females; some by the proprietors; some of small size are laboured by the farmers themselves; and some are occupied by persons engaged in other employments: none of which descriptions seem to be included in the above enumeration.

† Of these, 97 are employed in coal-mines.

Rate of Wages.—The usual wage of an able-bodied labourer is 2s. a-day in summer, and 1s. 8d. in winter, without victuals. When constant employment is given, the wage is 10s. a-week throughout the year. Women get from 1s. to 1s. 6d. a-day. Our farmers, however, are not much in the habit of employing day-labourers, except for harvest-work; and that is now most frequently done by the piece, at the rate of 14s. for wheat, and 11s. for oats or barley, per Scots acre. Potatoes are usually dug at the rate of from 8d. to 10d. per boll of 6 cwt. The ordinary work of the farm is done by hired servants, who have their bed and board in the farmer's house, and form part of his family. The common wage of a good ploughman is about L. 9, 9s. per half-year; of an inferior ploughman, L. 8. The wage of an experienced dairy-maid is from L. 5, 5s. to L. 6 per half-year, and of other female servants from L. 3 to L. 4, 10s. Masons' wages are 16s. or 17s. a-week; and carpenters' 1s. more.

Prices of Raw Produce and Country Manufacture.—The prices of different articles of raw produce and country manufacture, required for the purposes of rural and domestic economy, are nearly as follows:—Lime, per chaldron of 64 Winchester bushels, 14s.; dung, per ton, 5s. to 6s.; coals, per cart of 12 cwt., according to quality, 3s. or 4s.; beef, per stone of 16 lbs., (22½ oz. in the lb.) 8s.; mutton, per ditto, 7s.; pork, per ditto, 5s. 6d.; wheat, per imperial quarter, * L. 2, 10s. 10d.; barley, per ditto, * L. 1, 10s. 6d.; oats, per ditto, * 19s. 7d.; beans, per ditto, * L. 1, 12s. 5d.; potatoes, per ton, (10s. 8d. per boll of 6 cwt.) L. 1, 15s. 6½d.; a close-bodied one-horse cart, without wheels, L. 4, 5s. to L. 4, 10s.; pair of cart-wheels and axle, L. 6 to L. 7; a wooden plough, L. 3; an iron ditto, L. 4, 15s.; a pair of heavy harrows with 44 teeth, L. 2, 17s. 6d.; a pair of light ditto with 33 teeth, L. 1, 18s.; a double iron roller, L. 14; a corn-fanner, L. 6 to L. 8; mason-work, per rood of 2 feet thick, L. 2, 2s. to L. 2, 5s.; ditto, the mason providing materials, L. 7, 10s. to L. 8; carpenter work,—roofing, per rood, L. 5; ditto, flooring, per yard, 3s. 6d.; smith-work, screwed, per lb., 6d.; ditto, plain, per lb., 4d.; a set of horse shoes, 4s.

Sheep and Cattle.—The common breed of sheep is the black-faced; of cattle for the butcher, the West Highland; and of dairy

* These are the average prices of the Dumbartonshire fairs for the three years preceding 1834.

cows, the Ayrshire. Much attention has been paid for some years past to the improvement of the latter, to which the Strath-Endrick and Dumbartonshire Agricultural Clubs have greatly contributed by the liberal premiums offered for good bulls. Few of the sheep or black-cattle are bred in the parish, being bought in at the great fairs in the neighbourhood.

Husbandry.—The general character of the system of husbandry pursued is, green-cropping with a six years' shift. The usual rotation is, 1. oats; 2. potatoes, with a small portion of turnip; 3. wheat, with rye-grass and clover; 4. hay; 5. and 6. pasture. There are some farms, however, on which no regular rotation is observed, and two white crops in succession are still occasionally taken: but this occurs chiefly on lands which are held on uncertain leases; and the consequence is, that these lands are sadly scourged. Potato-husbandry is carried to great perfection, and the management of this crop is looked upon in a great measure as the test of a farmer's activity and enterprise. The soil is not in general favourable for turnips, and still less so for turning in sheep to eat them off the ground; and seldom more than to the extent of an acre or two are grown on each farm, to supply the dairy-cows. Summer-fallowing suits the soil better, and is partially practised; but the neighbourhood of Glasgow occasions a great demand for potatoes, and affords an abundant supply of dung, which is brought out by the return carts at a diminished expense. It is usual to apply to the potato crop from 30 to 40 tons of dung per Scots acre; and it is found, that the more liberal the allowance, the greater is the profit. Thirty bolls of potatoes per Scots acre, equal to 9 tons in weight, are reckoned an average crop; but 50 bolls are frequently gathered; and in favourable soils and seasons, 60, or even 70 are sometimes boasted of. The failure of the seed, which has been so generally matter of complaint for the last* two seasons, has been partially experienced here. Some fields were planted anew, and others sown with turnips; but the loss has proved much smaller than was feared at first; many fields which in spring seemed to have failed, having afterwards recovered and borne abundant crops. The opinion begins to prevail, that the failure, where it has occurred, and the tardiness of growth in other cases, were owing chiefly to the over-dry state of the ground at the time of planting; a circumstance of which we have not often reason to complain in this district. The potato crop is uniformly followed

* Written in 1835.

by wheat, for which it makes a good preparation. As soon as the potatoes are dug, the ground is ploughed anew, and the wheat sown. This can seldom be accomplished before the middle of October; and from that period till Martinmas is the usual season of wheat-sowing; but fallow ground is sown in the end of September. Four imperial quarters per Scots acre are reckoned an average return; but we have known double that quantity reaped after summer fallowing. Of oats, the average return may be five, and of barley, four and a half quarters.

The Dairy.—The dairy is an important, and the most profitable branch of our husbandry. A farm of 100 Scots acres will generally have 12 milch cows, yielding on an average 8 Scots pints of milk, and 1 lb. avoirdupois of butter per day, during seven months of the year. The whole of the milk, except what is used by the family, is churned, and the butter and butter-milk sent to Glasgow, where they find a ready market. Butter fetches about 9d. per lb.; and butter-milk 1d. per Scots pint. We shall thus have as the gross produce of each cow, 214 lbs. butter, at 9d. per lb. L. 8, 0s. 6d.; 1712 pints butter-milk, at 1d. per pint, L. 7, 2s. 8d.; making L. 15, 3s. 2d.

This system of dairy-husbandry seems well adapted to the neighbourhood of a large town, and is extending every year. Even from beyond the limits of this parish, a distance of eleven or twelve miles, butter-milk is regularly carried to Glasgow.

Leases and Rents.—The general duration of leases is nineteen years. Rents, though reduced from the high war-rates, are still too high for the tenant. Money-rents alone are in use; but in a few instances they are subject to a fixed increase or reduction according as the fiars price of wheat exceeds or falls below L. 3 per quarter. It seems not yet to be understood that it would be better for both parties that the landlord should take the payment of all public burdens on himself. Minister's stipend and school-master's salary, conversion labour money, and land-tax, are still very generally charged against the tenants; though on some estates they are relieved from the first two.

Farm-buildings.—Several of the farm-steadings have been rebuilt of late years, and in general they are substantial, and suited to the size of the farms; but there are some not very creditable exceptions, which we have a prospect of soon seeing removed. The dwelling-house is usually of one story, containing a kitchen, a parlour, and a small middle apartment below, with two sleep-

ing rooms above. On the lands of the Duke of Montrose, and on several of the farms on the Garscube and Dugalstone estates, there are good two-storied houses, with other ample buildings.

Size of Farms, Inclosures, &c.—The extent of the arable farms varies from 30 to 300 Scots acres—the most common size being about 80 acres. The whole of the arable part of the parish is inclosed and subdivided into fields, varying from one to fifteen acres in extent. The hill-pastures are likewise inclosed with ring fences. Thorn-hedges are in most common use; but dry stone dikes are frequent. More attention has been paid of late than formerly to the management of quick fences; but still many of them are far from being in good condition.

Obstacles to Improvement.—The chief obstacles to further improvement arise from the want of capital, and the high rate of rents compared with prices. Most of those tenants who had realized some money in the war-times have now lost it; and many have been obliged to quit their farms. There is no want of enterprise among them, and were the landlords disposed to be at the expense of furrow-draining their lands, we doubt not that the tenants would willingly pay a fair per centage on the cost. A great part of the largest estate in the parish is, or was till very recently, held in liferent by Dowagers, on whose lives the leases are contingent. On these lands no expensive improvements can be undertaken; and even the ordinary outlay necessary to keep the ground in heart cannot be made without risk, and in fact is not made.

Freestone Quarry.—At Netherton of Garscube there is a valuable freestone quarry of considerable celebrity. The stone is of a warm cream colour, easily chiselled as it comes from the quarry, but hardening by exposure. Roseneath House, Blythwood House, the Custom-House at Greenock, and Garscube House, present favourable specimens of this stone. At one time it was largely exported to Ireland and the West Indies, and proved a source of great wealth to the tacksman. The average out-put of rock is about 20,000 cubic yards per annum, and it gives employment to 68 persons.

Produce.—The average gross amount and value of raw produce raised in the parish, may be estimated as follow:

2488 Imperial quarters	of wheat, at L. 2, 10s. 1 Od. per quarter,	L. 6923 13 4
5675 do.	oats, at 19s. 7d. - do. -	5556 15 5
315 do.	barley, at L. 1, 10s. 6d. do. -	460 7 6
110 do.	beans, at L. 1, 12s. 5d. do. -	176 5 10

4545 tons potatoes, at L. 1, 15s. 6d. per ton,	-	-	L. 8067	7	6
1872 do. turnip, at 17s.	do.	-	1591	4	0
26,550 do. hay, at 3s.	do.	-	8882	10	0
18,660 do. wheat-straw, at 1s. 3d.	do.	-	1166	5	0
31,780 do. oat-straw, at 1s. 8d.	do.	-	2648	6	8
1960 do. barley-straw, at 1s. 3d.	do.	-	122	10	0
Land in pasture, grazing 700 milch-cows, at L. 5 each,	-	-	3500	0	0
do. do. 328 black-cattle, at L. 3	-	-	984	0	0
do. do. 160 young cattle, at L. 1, 10s.	-	-	240	0	0
do. do. 850 sheep, at 8s.	-	-	340	0	0
Gardens and orchards (conjectured),	-	-	300	0	0
Thinnings of woods, (do.)	-	-	300	0	0
8187 carts of coal of 12 cwt., at 2s. 9d. per cart,	-	-	1125	14	3
4500 do. do. at 4s. per do.	-	-	900	0	0
1695 chaldrons of lime, at 14s. per chaldron,	-	-	1186	10	0
20,000 cubic yards freestone, at 4s. 6d. per yard,	-	-	4500	0	0
Gross produce,	-	-	L. 43,393	9	6

Manufactures and Arts.—The chief branches of manufacture and art, are calico-printing, cotton-spinning, and bleaching of cottons and linens. We have now (1835) three printfields, which employ 623 hands, and throw off annually 167,800 pieces of 24 yards each. It is chiefly block-printing that is carried on; but some machinery has recently been erected, and more is about to be introduced into the works at Milngavie. The cotton-factory employs 130 persons, and is now being enlarged to double its former extent. Two bleachfields employ 82 persons; at the Clober field 3,169,814 yards of cloth are bleached annually, of which 146,746 yards are linen. A paper-mill, conducted till lately on the old system, employed 22 men and several females, and produced twenty reams of paper a-day, but now that the improved machinery has been introduced, with 15 men and about the same number of females as before, it produces sixty reams per day. A snuff-mill employs 2; and four corn mills, one of which is chiefly for wheat and barley, employ 13 persons. A distillery, at which 5 hands are employed, consumes 483 imperial quarters of barley, and produces 11,200 imperial gallons of whisky a-year. In the cotton-factory, the legal time of working is strictly adhered to—twelve hours a-day for five days of the week, and nine hours on Saturday. At other employments the usual time of working is ten hours a-day, but on occasions of extraordinary demand, these hours are often increased. Good wages are made at most of these employ-

* Deducting from this sum the value of minerals, woods, and orchards, there remains in round numbers L. 35,100, as the value of the gross produce of land. The land rent of the parish is L. 11,500, nearly one-third of the produce; which is much too high a rate, the calculation being that the land ought to produce four rents to give a fair profit to the farmer. Considerable allowance, however, must be made for errors in an estimate in which accuracy is obviously not attainable; and we have no doubt that our estimate of the produce is below, rather than above the truth.

ments. Printers earn from 16s. to 30s., and cotton-spinners about 20s. a-week. To common observation it would appear that cotton-spinning is not favourable to health, the workers having generally a sallow and delicate look. The other employments seem perfectly healthy. Factory-work, by collecting a multitude of persons of both sexes together, is injurious to morals; and the demand for the labour of children, which, though now checked at the cotton-factory, continues at the printfields, threatens to increase the evil. It is an evil, however, which the masters of such works have it much in their power to remedy or prevent, by making a careful selection of workers, by dismissing bad characters from their employment, by providing for the education of the children, and by encouraging attendance on religious ordinances.

V.—PAROCHIAL ECONOMY.

Markets.—The nearest market-town is Glasgow, which is about seven imperial miles distant from the centre of the parish. The only village of any consideration is Milngavie, in which there are good shops for butcher-meat, groceries, and various other wares. A fair for milch-cows is held at New Kirk, (by which name the few houses near the church are usually called) on the 1st of May, O. S. which was formerly well frequented; but is now dwindled away into insignificance.

Means of Communication.—The means of communication are abundant. We have a penny-post to and from Glasgow every lawful day, with two post-offices, one at Milngavie, and the other at New Kirk. The high-ways from Glasgow to Balfron and Drymen pass through the parish; making, together with part of the road to Dumbarton, about 11 imperial miles of turnpike-road within its boundaries. We have three stage-coaches travelling on these roads; one from Milngavie daily; one from Balfron, and one from Drymen, three times a-week; all of them to Glasgow. The Forth and Clyde Canal passes through the parish, nearly parallel with and not far from its southern border. The principal local purpose for which it is used is the conveyance of coals from the Temple coal-work, and of stones from Garscube quarry. The farmers near it sometimes receive boat-loads of dung from Greenock; but the heavy duties render it fully as dear as that brought by carts from Glasgow.

Bridges.—Our principal bridges are over the Kelvin, connecting this parish with Cadder and the Barony. There are three of these, of three arches each, and one of two arches; besides a

handsome private bridge lately built for a new approach to Garscube House. The great aqueduct, by which the Forth and Clyde Canal is carried over the Kelvin, stands in the angle, where this parish meets with Govan and the Barony. Over the Allander there are three single-arched bridges, and several others over smaller streams. All of them are of stone, and they are generally in good condition.

Ecclesiastical State.—The church is centrally situated, and is little more than three miles distant from the remotest inhabited parts of the parish. It was built in 1807, and is in good repair. There is accommodation in it for about 700 persons. None of the sittings are let for hire, but all of them, except 20, are appropriated by the different heritors, according to their valuations, and are occupied by their tenants, free of charge. Those not appropriated are reserved for strangers and the poor. A handsome new manse, in the English cottage style, was built in 1837, on a plan by Mr Herbertson of Glasgow. The glebe, including garden ground, is about 5 Scots acres in extent, and is worth L. 10 Sterling a-year. There is no grass glebe; but the statutory allowance of L. 20 Scots is received in place of it. The stipend consists of 17 chalders of grain, half barley and half oatmeal; together with L. 100 Scots for communion elements, and L. 1, 1s. 7½d. Sterling, drawn, “conform to use and wont,” from the lands of Kilbowie, in the parish of Old Kilpatrick. Taking an average of the Dumbartonshire fiars for the three years preceding 1834, and deducting 9½ per cent. as the difference between the Dumbarton and Linlithgow measures of barley, the whole amount of the stipend is L. 266, 13s. Sterling.

There is a Relief meeting-house at Milngavie, and in the neighbouring parish of Old Kilpatrick are two Seceding houses, one connected with the Original Burgher, and the other with the United Secession, which afford accommodation for a considerable number of inhabitants of this parish. The stipend of the Relief minister at Milngavie is L. 110 Sterling a-year, paid from the seat-rents and collections; besides which he has a free dwelling-house and garden.

The following is as near an approximation as can well be made to a correct classification of the inhabitants according to their religious denominations:—Attached to the Establishment, 338 families, or 1784 persons; Seceders or Dissenters, 215 families, or

1104 persons ; Episcopalians, 5 families, or 31 persons ; Catholics, 19 families, or 112 persons ; total, 577 families or 3031 persons.*

Divine Service is not so regularly well attended as it ought to be, neither at the Established Church, nor, it is believed, at the Relief meeting-house. According to a common calculation, half of the population are supposed capable of attending church. Of the 1784 persons, therefore, who profess to be attached to the Establishment, 892 ought to attend public worship ; but the church is seldom full except on occasion of the communion ; and the congregation is considered to be well out when it amounts to 500 persons. A good many, however, are accommodated at Mary-Hill, and other neighbouring churches ; and, on the whole, it cannot be said that we are not a church-going people. The average number of communicants at the Established Church is 360 ; and the average amount of the ordinary collections for the poor is L. 58, to which L. 10 may be added as the probable amount of occasional collections for religious and charitable purposes.

Education.—There are in the parish one parochial, and five private day-schools, and five Sabbath schools. None of the private schools are endowed, but four of them have school-rooms provided by individuals, and the other by private subscription. One of the teachers has likewise a dwelling-house and garden, together with a small salary, supplied by Sir Archibald Campbell, Bart. The branches of education generally taught are merely reading, writing, and arithmetic. In the parochial school, and in one of the private schools, English grammar, Latin, geography, and practical mathematics are taught in addition to the more common branches. The parochial schoolmaster has the maximum salary and other legal appointments, with a small endowment from the Mains estate, amounting to L. 20 Scots a-year. The school-fees are so ill paid, or rather so seldom demanded, that they do not add above L. 10 a-year to his income. The usual terms of education are, for reading, 3s. 6d. ; for writing and accounts, 4s. 6d. ; English grammar or geography, 5s. ; and Latin, 7s. per quarter. Though the benefits of education are freely acknowledged, there is reason to fear that many parents are satisfied with giving their children a smaller share of it than formerly. The temptation of adding somewhat to the family earnings, causes those who are in the neighbourhood of the printfields to be taken from school at much

* This enumeration differs slightly from the Government census of 1831, having been made independently of it, and partly in the preceding year.

too early an age ; an evil for which, it is hoped, a partial remedy will soon be provided by the erection of an infant school at Milngavie, (erected in 1835.) In that village the proportion of persons above six years of age who have not received some degree of education, is about three in every hundred ; but with many the degree of it is so small, that they can scarce be said to be able to read. Over the parish, the average proportion attending school is one-tenth of the population.

Literature.—We have two libraries ; one of them kept at Milngavie, and the other in the parish school-room. They are both supported by annual subscription, and the latter is much read. The books are chiefly religious, biographical, historical, and agricultural.

Savings Banks, &c.—Several years ago a savings bank was established, but, not meeting with encouragement, it has been discontinued. The nearest to which the inhabitants have access, are at Mary-Hill and Glasgow ; but it is believed that little money is lodged in them from this parish. A friendly society maintained its ground for a good many years ; but whether from some defect in its constitution, or from mismanagement of its funds, it was found necessary to dissolve it ; and at present we have no institution of the kind, to the regret of the well-wishers of the labouring classes.

Poor and Parochial Funds.—In the year 1831, which we select for the sake of comparison by the Government census, and as being quite an average year, the sum expended on cases of pauperism was L. 173, 9s. 11d. Of this sum there went to the support of the ordinary poor, L. 127, 9s. ; occasional poor, L. 27, 11s. 10d ; board of a lunatic, L. 13, 7s. 7d. ; funeral expenses, L. 5, 1s. 6d. The number of ordinary poor throughout the year was 35, so that the average allowance to each was 6s. per calendar month. The population being 3090, the charge to each inhabitant would be 1s. 1½d ; and the rental of the parish being L. 11,500, the burden on the land would be 3½d. in the pound, supposing the land to bear the whole charge. But we have an annual revenue of about L. 95, arising from the following sources :—Church door collections, average L. 58 ; interest of L. 520 at 4 per cent. L. 20, 16s. ; interest of L. 40 at 5 per cent. L. 2 ; hearse and mortcloth hire, average L. 10 ; private baptisms, average L. 1, 10s. ; fines for immorality, average L. 3 ; total, L. 95, 6s. By a voluntary contribution, proportioned to their several valuations, the heritors make up what is wanting to meet the charges ; a plan that is

free from many of the objections to which a legal assessment is liable; but the success of which depends on the unanimity of the heritors. We have met with several instances of persons in very needy circumstances refraining from asking, and even refusing to accept, parochial relief; but this disposition is not now so general as it once was. Relief is rather claimed as a right, than regarded as a degrading charity; yet it does not often happen that any who are not really in need apply for assistance.

Alehouses.—There are sixteen houses licensed for the sale of spirits and ales, and two for the sale of ales alone; being at the rate of one for 31.5 families. Though the proportion is higher in many other places, yet the number is too great for the good of morals; and it is much to be desired that more strictness were observed in the granting of licenses, and greater facilities afforded for withdrawing them when abused.

MISCELLANEOUS OBSERVATIONS.

Since the date of the former Statistical Account of the parish, considerable changes have taken place, both in respect to Agriculture and Manufactures. A better method of Husbandry is now followed, consisting in a regular system of green-cropping, which implies the frequent application of manure, and an effectual working and cleaning of the ground. The benefit of this system is seen in the character of the wheat-crop; which, instead of being as formerly very precarious, now seldom fails, and is chiefly relied on by the farmer for payment of his rent. We do not regard the high degree of perfection, or rather we should say of finicalness to which the art of ploughing has been carried, as any advantage; for not only is less than a reasonable quantity of work done, but it is not substantially done, deep ploughing being sacrificed for the sake of an eye-sweet furrow. For the same reason, we look upon it as no improvement, that ploughing is now almost uniformly performed with two horses only, instead of three or four. One advantage, however, that hence results, is a great saving in the number of horses kept, being 75 fewer than before; and this notwithstanding an increase in the number kept for purposes not agricultural. The number now in the parish is 285, of which 230 are for the purposes of agriculture. The want of good roads, noticed in the previous report, has been long since remedied, the parish being intersected in every direction with turnpike or other roads, the former of which are in excellent condition. There is therefore no longer any difficulty in procuring dung for the land; and it is

now carried from Glasgow in great quantity to almost every part of the parish.

By the introduction of cotton-spinning and calico-printing, the village of Milngavie has risen to considerable importance since the date of the former report, its population having increased about sixfold. A large circulation of money has thus been occasioned, and a convenient market created for the disposal of the produce of the neighbouring farms.

In regard to the comforts and conveniences of life, the people of this parish partake in a fair measure of the improvement that has been general over the kingdom. They are better fed, better clad, and better lodged than before. At the same time, pauperism has greatly increased, not only in absolute amount, but in *ratio*. On referring to the accounts of the poor's funds for the year 1791, when the population, according to the former Report, was 1700, we find that the expenditure on cases of pauperism was only L. 39, 16s. ; whereas in 1831, with a population of 3090, the expenditure was L. 173, 9s. 11d. Thus, while the population has increased in the proportion of 1.8 to 1, or somewhat less than twofold, pauperism has increased in the proportion of 4.3 to 1, or more than fourfold. This is easily accounted for, without supposing any great change in the management. The more abundant and the more easily attainable the necessaries or luxuries of life are, the less is the inducement to save, the greater the temptation to squander ; so that, when a family is deprived of its head, or when individuals are disabled by the infirmities of age, there is too often no resource but on the poor's funds. And the habits of full living, which a state of prosperity had produced, cannot be entirely abandoned even in reduced circumstances ; whence it happens, that not only is the relative number of the poor augmented, but their necessities are likewise increased, and a higher rate of relief is required. It will tend to confirm these remarks to observe, that the rate of pauperism is highest among the manufacturing or operative, as distinguished from the agricultural classes ; the improvement in the mode of living having been greatest with the former. Thus in the year 1831, the manufacturing village of Milngavie, containing 1162 of the 3090 inhabitants of the parish, absorbed L. 76, 7s. 4d. of the whole expenditure, which, as already stated, was L. 173, 9s. 11d. or, the population of Milngavie being to the whole population of the parish as .37 to 1, the proportion of pauperism is .44. If a similar increase of pauperism should be

found uniformly to attend a state of manufacturing prosperity, it will form an important deduction from the addition to the sum of national happiness which such prosperity produces.

The chief improvement which the present state of agricultural knowledge suggests, is furrow-draining, accompanied with the use of Mr Smith of Deanston's trench plough, or some other method of opening the subsoil, so as to allow the escape of the water. The trench plough has not yet been introduced, and perhaps the subsoil is too stiff, and too full of boulders to admit of its introduction; but furrow-draining is making yearly progress, and with manifest advantage. Small stones are more frequently used for filling than the drain tile, and seem preferable where they can easily be procured; but, in many situations, they are not to be had without great expense; and it is much to be desired that some of our proprietors would establish kilns for the manufacture of tiles.* Were the land once thoroughly drained, little would be wanting to warrant us in saying that the parish is in a state of high agricultural improvement.

Drawn up 1835; Revised February 1839.

PARISH OF ROW.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. JOHN LAURIE, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—In the immediate neighbourhood of the church, there is a long narrow strip or point of land, which, at low water, runs into the Gareloch considerably more than half its breadth, and is called in Gaelic a *Rhue* or point. Although there is nothing remarkable in this point, except its having been long a ferrying station to Roseneath, it has evidently given its name to the parish, most probably because the church was built near it, when Row, which was once a part of the parish of Roseneath, became a parish of itself in the year 1648.

Extent and Boundaries.—The parish extends about 16 miles nearly due north and south. Its greatest breadth from east to west is about 6 miles, its narrowest point somewhat more than

* A tile kiln has now been erected by Mr Colquhoun of Killermont.

1 mile, and its mean breadth may be fairly estimated at 4 miles. It extends over a surface, therefore, of about 64 square miles. It is bounded on the south, by the river Clyde; on the east, by the parishes of Cardross and Luss; on the north, by a narrow strip of Luss of about a quarter of a mile in breadth, and lying between Row and the parish of Arrochar; and on the west, it is bounded by Loch-Long, Roseneath, and the Gareloch. Its form is nearly that of a wedge, with its greatest breadth towards the south, and running to a point on the north.

Topographical Appearances.—By far the greater part of the parish is hilly and mountainous. The main ridge of hills begins to ascend gradually from the shore of the Clyde in the south, and stretches continuously in a northerly direction throughout the whole length of the parish. The summit of another ridge runs along its eastern boundary for several miles, until it unites with the other at the head of Glenfruin. The main or western ridge, which is skirted on the west by the Gareloch and Loch-Long, and on the east by Glenfruin, is mostly covered with heath, where it has not been cultivated or laid under wood. That along the east, though higher, is beautifully green. The height of Finnart hill, which is perhaps the highest in the parish, is said to be 2500 feet above the level of the sea, which lies at its base. Between these two ridges of hills, lies the beautiful strath of Glenfruin, signifying, according to some, the Cold Glen, or, according to others, the Glen of Sorrow, probably so called from its having been the scene of some disastrous event in the times of old, when its inhabitants were less secure than they now are from the murderous inroads of their neighbours. This strath is about 5 miles long, and varies from between a quarter and three-quarters of a mile in breadth. With the exception of a little natural wood towards the south, and one or two insignificant patches of plantation elsewhere, this glen is wholly without wood. Much of its soil is exceedingly good; a part of it is under cultivation; but from its tunnel-like form, and its having no wood or hedges to intercept the currents of wind that often traverse it very furiously, it is both much less cultivated and much less fertile than it should be, and at one time actually was. It owes but little to man's labour and care, and therefore it gives but little of what it would give, were it dealt with a little more generously. Few straths, with no ornament from the hand of man, are more truly beautiful. The most northerly eight miles of the parish are entirely hilly, with only one or two small patches of level ground. There is a considerable portion of natural wood along that side of the hills

that looks into Loch-Long. The banks of the Gareloch are much **less precipitous than those of Loch-Long**. Cultivation has extended a considerable way up the side of the hills along it, and there is enough of wood to add to the beauty of the scenery, as well as occasionally to add something to the income of the proprietor. From the village of Row southwards, the banks of the Gareloch become more level. In the neighbourhood of the church, and of his own house of Ardenconnel, the late much respected proprietor, Mr Buchanan, planted a considerable portion of wood, and to him that beautiful neighbourhood owes much of its beauty. The flattest and the best land in the parish is on Lord John Campbell's estate of Ardincaple, and in the barony of Millig, which lies immediately behind the town of Helensburgh. Ardincaple is well wooded, but the barony of Millig is exceedingly naked, and has no shelter except the little which it steals from the skirting plantations of Ardincaple on the west. Of the whole parish there is but an inconsiderable part that is either cultivated or capable of being cultivated to any advantage.

Before concluding the topographical appearances, it would be almost unpardonable to omit all mention of the extreme loveliness of the situation of the church, and the burying-ground in which it stands. The church itself is as plain and ordinary a looking building as can well be. It has nothing ornamental or tasteful in it, but every thing around is full of exceeding beauty. The square burying-ground is surrounded on three sides by fine, old wide-spreading plane trees, the first to burst into leaf in spring, and most abundant in their foliage. A bay of the Gareloch lies within a few yards of it, which at full tide is extremely lovely ; and the opposite shore and hills of Roseneath are strikingly picturesque and beautiful. Saddening as the reflections are which arise when standing amidst the ashes of thousands of fellow-beings, it is impossible to look around without feeling the influence of having as much exquisite scenery spread before the eye, as it is possible to conceive. The situation of the manse is little inferior to that of the church, and the view from the Row point, at a little distance from the church, is equally delightful. Towards the north, the loch stretches itself for a distance of five miles, and the prospect is terminated by the dark, rugged, and lofty hills of Loch Long, " noble samples of nature's statuary." Towards the south lies the point of Roseneath with its castle, its fine trees, and its gallow-hill wooded to the top ; the expanse of the Frith of Clyde, the turrets of Ardincaple, and the wooded point of Ardmore.

Meteorology.—From its nearness to the Frith of Clyde, and the numerous large lochs in the neighbourhood, the temperature of this parish is in general mild in winter. As a proof of this, it may be stated, that while the thermometer in the Botanical Garden at Glasgow fell to $1\frac{1}{2}^{\circ}$ below zero in 1838, it stood here at 15° above zero. Another proof of the mildness of the climate is seen in the earliness with which the wild flowers make their appearance. About two years ago, the common primrose was in full flower in the side of a spring, near the manse, on the 17th of January: and the *Rhododendron ponticum* matures its seeds, from which young plants spring up without any shelter or care. Through the kindness of Lord John Campbell, I am enabled to transcribe the following tables of observations made at Ardincaple.

1832.

	Mean temperature at $9\frac{1}{2}$ A. M.	Mean of extreme.	Mean maximum.	Mean minimum.	Inches of rain.
January,	40.61	40.62	44.07	37.17	
February,	41.12	41.44	46.12	36.77	
March,	44.55	43.36	48.83	37.90	
April,	50.50	48.30	55.90	42.63	
May,	55.55	51.91	62.60	41.33	
June,	62.68	58.41	66.90	49.95	
July,	63.85	59.34	68.53	50.15	
August,	62.88	59.04	67.60	50.62	3.40
September,	52.38	55.36	61.92	48.81	2.40
October,	52.25	49.81	53.85	45.80	7.10
November,	43.00	43.13	47.67	38.62	5.25
December,	41.33	40.76	44.52	37.00	6.40
Means of the year.	50.892	49.361	55.71	43.012	4.91

1833.

	Mean temperature at $9\frac{1}{2}$ A. M.	Mean of extreme.	Mean maximum.	Mean minimum.	Inches of rain.
January,	35.77	35.88	40.16	31.60	0.80
February,	40.38	40.36	44.72	36.00	6.67
March,	40.33	40.58	47.27	33.90	1.51
April,	47.66	46.08	52.86	39.30	3.10
May,	59.26	52.66	62.80	47.52	2.30
June,	60.58	57.13	64.70	49.57	5.56
July,	64.00	61.61	70.19	53.02	2.60
August,	62.45	55.86	66.35	45.37	1.65
September,	56.25	53.33	59.61	47.05	5.15
October,	47.54	49.94	55.15	44.73	4.35
November,	43.96	42.15	46.98	37.33	5.98
December,	41.43	40.60	44.70	36.50	11.00
Means of the year.	49.97	47.919	54.624	41.824	4.214

1834.

	Mean temp. at 9½ A. M.	Mean maxi- mum.	Mean mini- mum.	Mean temp. of at. ther.	Mean height of barom. at noon.	Means of ex- treme temp.	Rain in inches.
January,	41.72	45.70	37.80	63.6	30.042	41.75	11.78
Feb.	41.00	46.06	36.00	58.8	30.480	41.03	2.85
March,	45.00	50.20	39.10	63.4	30.123	44.65	5.35
April,	48.66	55.56	40.20	65.7	30.760	47.88	0.38
May,	56.81	64.22	45.42	68.3	30.510	54.82	2.07
June,	61.38	66.80	50.05	67.7	30.316	58.42	3.80
July,	64.95	71.21	53.20	69.2	30.352	62.20	2.10
August,	62.25	68.81	56.10	69.2	30.418	62.45	3.55
Sept.	56.90	62.84	49.49	67.9	30.460	56.16	3.80
October,	49.90	55.50	44.00	66.6	30.450	49.75	5.60
Nov.	44.37	49.93	40.18	64.4	30.412	44.05	5.00
Dec.	43.33	46.96	38.51	64.4	30.748	42.73	4.82
Means of the year.	51.34	56.816	44.17	65.8	30.423	50.49	4.258

Greatest height of the barometer, 31.314 inches, December 15th.

Mean annual height of barometer, 30.420.

Least height of barometer, 29.21 inches, November 29th.

Mean maximum of thermometer during the year, 56°.816.

Mean annual temperature at 9½ A. M. 51°.34.

Mean minimum of thermometer during the year, 44°.17.

Least height of thermometer, 26°, January 29th.

Greatest height of thermometer, 83°.5, July 31st.

Analysis of Remarks made on the Weather in Days for 1834.								Analysis of Remarks on the Winds for 1834.							
	Dry.	Wet.	Very fine.	Fine.	Over- cast.	Stor- my.	Rather fine.	North.	N. E.	East.	S. E.	South.	S. W.	West.	N. W.
January,	3	28	0	3	15	10	3	2	0	1	8	2	3	5	8
Feb.	14	14	2	5	13	6	7	1	2	2	4	2	3	8	5
March,	12	19	6	2	6	10	7	0	0	4	0	0	2	21	4
April,	26	4	4	7	11	2	6	0	2	9	2	6	0	11	0
May,	14	17	12	3	12	1	3	0	0	6	0	14	0	11	0
June,	12	18	2	9	10	0	9	1	0	0	0	2	4	22	1
July,	18	13	12	2	13	2	2	0	0	7	7	4	3	8	2
August,	17	14	6	2	9	0	14	0	1	5	2	4	11	8	0
Sept.	16	14	4	4	18	0	4	1	1	10	2	1	10	5	0
October,	10	21	5	2	8	7	9	0	0	2	0	0	6	17	6
Nov.	14	16	6	3	6	9	6	1	6	6	2	1	6	8	2
Dec.	16	15	5	0	12	7	7	1	0	6	1	3	4	8	8
Mean of the year	172	193	64	42	133	54	72	7	12	58	28	39	52	132	6

This parish is but rarely visited with thunder storms; but for the last two winters there has been a considerable quantity of sheet

lightning, and the sky, in the earlier part of the winter particularly, is very frequently illuminated by vivid and beautiful streaks of variously-coloured aurora borealis.

Hydrography.—There is no stream that deserves the name of a river in the parish of Row. Indeed, with the exception of the small stream Fruin, which runs through the glen of that name, and falls into Loch Lomond, about 7 miles from its source, there are only a few brooks from the hills, which are almost all nearly dry in summer. The Clyde, however, skirts its southern boundary, and the Gareloch and Loch-Long lie along its western extremity. The Gareloch is 6 miles long, and at an average somewhat less than a mile in breadth. Its greatest depth is said to be about 23 fathoms, and its bottom is in general covered with a very fine stiff bluish clay, affording excellent anchorage for vessels. The extreme beauty of its banks, rather than the virtue of its salt water, has long had sufficient attraction to draw many visitors for sea-bathing, and of late its shore has become studded with many beautiful villas, the property in general of the respectable families who come to make them their summer residence. And assuredly, few places can boast of so much to attract and fascinate with its beautiful scenery. Loch-Long is very much deeper than the Gareloch; it is also considerably broader in that part of it which bounds this parish, and, as its name imports, it is much longer, the Gareloch having probably received its name of Gare or “short” Loch from its being so much shorter than Loch Long. If the Gareloch may be vain of the beauty of its banks, Loch Long may be proud of its deep black waters, and the majesty of its high and rugged mountains.

Although there are many springs along the sides of the hills, there are none of any consequence, or with any mineral virtues that have been turned to any use. The temperature of one or two of these has been found to be about 45° both in summer and winter.

Mineralogy.—In the northern or hilly part of the parish, the rocks consist of greywacke, clay slate, and transition limestone. Towards the south, are beds of red sandstone, and coarse conglomerate. The connection of these rocks with the coal formation has not been well made out. From the circumstance of their resting upon the greywacke series, they have generally been supposed to belong to the old red sandstone. Dr Thomson, however, is disposed to consider them as belonging to the new red sandstone. Attempts have been made in two places to find coal, but unsuccess-

fully, although a bore was made to the depth of 50 fathoms. The only appearance of coal was a stratum of crow coal of about an inch thick. Gypsum and thin beds of limestone are associated with the sandstone, which rises to the height of 334 feet behind the town of Helensburgh, and is covered by till or diluvium of a whitish constratified clay full of water. There is a blue limestone on the top of the slate in Ardenconnel moor and in Glenfruin, in which masses of pyrites are found. There are also worn boulders, either from the rocks of the neighbourhood or from others which lie in the north. Greenstone and mica slate abound. In the lower part of the parish, resting upon this deposit, are alluvial beds of gravel, sand, and clay containing marine shells, indicating a change in the relative levels of the sea and land, posterior to the deposition of the diluvium. The shells in general agree with those of the adjoining seas. There are, however, amongst them, some which are not known to be identical with any existing species.

Zoology.—Among the animals which have now become less common in many places, there are occasionally found the roe, the fox, the badger, the wild-cat, martin, and the squirrel. The following list of birds was made up by a very accurate observer, George Campbell, Esq. Ardincaple: Sparrow-hawk, peregrine falcon, kestrel, merlin, common buzzard, hen-harrier, kite, short-eared owl, barn-owl, tawny-owl, goat-sucker, chimney-swallow, martin, sand-martin, common swift, spotted fly-catcher, missel-thrush, fieldfare, song-thrush, red-wing, blackbird, moor blackbird, European-dipper, redbreast, redstart, black-cap warbler, whitethroat, wood-wren, golden-crested wren, great titmouse, blue titmouse, cole titmouse, long-tailed titmouse, hedge sparrow, pied wagtail, grey wagtail, yellow wagtail, shore-pyot, sky-lark, yellow-bunting, corn-bunting, house sparrow, chaffinch, mountain-finch, siskin, goldfinch, common brown linnet, green grossbeak, common bulfinch, cross-bill, common starling, raven, carrion crow, hooded crow, rook, jackdaw, magpie, jay, common creeper, common wren, cuckoo, ringdove, common pheasant, black grouse, red grouse, partridge, heron, curlew, redshank, sandpiper, woodcock, common snipe, jack snipe, dunlin, corncrake, common gallinule, common coot, oyster-catcher, turnstone, water ouzel, green lapwing, golden plover, ringed plover, bernacle goose, sheldrake, wild duck, teal, common widgeon, scaup pochard, goosander, horned grebe, red-throated diver, bill auk, common gull, herring gull. Of these the rarest in the parish are the merlin, horned-owl, mountain finch, siskin, sheldrake, common

teal, horned grebe, red-throated diver, water-rail, and cross-bill ; indeed this last bird has not been observed in the parish till last summer, and it is observable that the fir cones, its peculiar food, were particularly abundant last year.

In the lochs, salmon and sea trout are common ; the herring visit them early in the season, and are often taken in great abundance, particularly in Loch-Long ; cod, whiting, haddock, and seth or coal-fish are also abundant, though not so much so as formerly. There are a few oysters in the Gareloch, but they are both more numerous and larger in Loch-Long. The bottle-nose whale, porpoises, otters, and seals, are occasionally seen. About thirty years ago, a specimen of the opah or king-fish was taken on the shore near Helensburgh, and a few years since a tunny of the enormous length of 9 feet, probably the largest that has ever been taken in the British seas, was captured in the Gareloch. Both of these have been preserved in the Andersonian Museum, Glasgow.

Botany.—There is a very considerable variety of plants found in the parish. Among those which are not very common in Scotland, are :

<i>Veronica montana</i>	<i>Dipsacus sylvestris</i>	<i>Spiræa filipendula</i>
<i>Circeæ alpina</i>	<i>Plantago media</i>	<i>Thalictrum flavum</i>
<i>Blysmus rufus</i>	<i>Solanum dulcamara</i>	<i>Bartsia viscosa</i>
<i>Eriophorum alpinum</i>	<i>Verbascum nigrum</i>	<i>Melampyrum sylvaticum</i>
——— <i>gracile</i>	<i>Myrrhis odorata</i>	<i>Geranium pratense</i>
<i>Phalaris canariensis</i>	<i>Conium maculatum</i>	<i>Malva sylvestris</i>
<i>Poa maritima</i>	<i>Drosera longifolia</i>	<i>Carduus marianus</i>
—— <i>nemoralis</i>	<i>Rumex alpinus</i>	<i>Habenaria viridis</i>
<i>Festuca ovina</i>	<i>Triglochin maritimum</i>	——— <i>trifolia</i>
——— <i>bromoides</i>	<i>Adoxa moschatellina</i>	<i>Typha angustifolia</i>
<i>Bromus giganteus</i>	<i>Cerastium tetrandrum</i>	<i>Carex levigata</i>
<i>Montia fontana</i>	<i>Prunus domestica</i>	<i>Aspidium lobatum.</i>

It has been already observed, that the climate is particularly favourable for the early appearance of the wild flowers. It spares also the garden flowers till late in the season, and last New Year's day there were both carnations and ten weeks stock in flower in the manse garden ; and in the neighbourhood the gooseberry has occasionally a second crop of blossom towards the end of the year. Many of the more tender green-house plants stand the winter out of doors, and the laurustinus and varieties of laurel thrive particularly well.

II.—CIVIL HISTORY.

Historical Notices.—The history of this parish has not been illustrated by any published account excepting the very meagre outline contained in Sir John Sinclair's Statistical work. Some

particulars applicable to it will also be found in the *Agricultural Survey of Dumbartonshire*, published in 1811.

The whole lands now contained within the parish constituted part of the original earldom of Lennox. Those which form the eastern coast of the Gareloch, extending into Glenfruin, were given by Alwyn, second Earl of Lennox, to his younger son Amelec, in the twelfth century. This beautiful estate descended to Walter, son of Alan, the great-grandson of Amelec, who became the male representative of his house, and who, marrying the heiress of the elder branch, continued the line of the family. The mansion or castle seems to have been at Faslane, where the mound may still be distinguished in the copsewood. Here, according to Blind Harry, Sir William Wallace was received and hospitably entertained by his gallant comrade Earl Malcolm, after he had sacked Dumbarton, and laid the Castle of Roseneath in ashes. We have no notice of Faslane Castle after the succession of the Faslane branch to the honours of Lennox, and the estate was by degrees feued out in small portions among a variety of vassals. Towards the northern end of it, several cadets of the neighbouring clan Macfarlane thus acquired lands on the shore of Loch-Long, while the Gareloch side and Glenfruin gradually became almost a colony of Colquhouns. A race of small proprietors settled in Glenfruin, and distinguished by the patronymic surname of Macwalter, pretended to a direct descent from a younger son of Lennox; but their illustrious blood does not appear ever to have emerged from obscurity. The only exception to this description of the bonnet lairds of Row, was the Macaulays of Ardincaple. Contemporary with the wars of succession and of independence which followed the death of the maiden of Norway, were the Ardincaples of that ilk. About two centuries later, they assumed the patronymic surname of Macaulay, and, gradually extending and condensing their estate, acquired in some degree the importance of a clan. Nor was this an empty distinction in an age when armed men were the most prized produce of the soil, when military service was the best payment of mail, and when the muster-roll occupied the place of the rent-roll. In few parts of Scotland was this more the case than in Dumbartonshire west of the river Leven. The three clans of Macfarlane, Macaulay, and Colquhoun, plundered each other, or combined to sweep the low country of its flocks and herds. During the fifteenth and sixteenth centuries, the annals of this district would present a perpetual recurrence of raid and foray, in which

rapine and sword united to embroil and impoverish the neighbourhood. In these scenes Sir Aulay Macaulay of Ardincaple bore a conspicuous part, and the traditions of the country still preserve his name with awe. Occasionally other bands of plunderers invaded this district, among whom the more remarkable were the Macgregors, Campbells, Camerons, and Buchanans. One of these murderous conflicts was of sufficient importance to merit a place in the history of the times, and was fought in Glenfruin in February 1603. The older accounts of this transaction bear such marks of partiality as to be little worthy of credit, and the traditions of the district lead us into great confusion. The recent inquiries of Mr Pitcairn have brought to light a mass of authentic information, which will be found in his Criminal Trials. It seems enough here to state generally, that Alexander Colquhoun of Luss, having obtained a commission of lieutenancy against "thievis, sornaris, and broken men," who infested the Lennox, arrived in his country just as it had been invaded by Alistair Macgregor of Glenstrae at the head of 400 men. Colquhoun rousing his vassals, and being assisted by some of the neighbouring lairds, and a number of the Dumbarton burghers, came up with the marauders at the farm of Strone, near the head of Glenfruin. A desperate combat gave victory to the Macgregors. Of their opponents 140 men were slain, the laird of Luss narrowly escaping, and many of those that fell being, as Calderwood says, landed men of good rank. The plunder carried away by the Macgregors consisted of 600 head of cattle, 800 sheep and goats, and 280 horses. The story of some students from Dumbarton having been massacred in cold blood, does not seem to be borne out by the records. The arm of the law, too long suspended from motives of policy or partiality, now descended upon the unhappy Clangregor, more in vengeance than in justice. The whole race were proscribed, their name prohibited, their children exiled from their native land, and it was not until 1774 that the many penal enactments against them, which defaced the statute book, were finally repealed. After the battle of Glenfruin, the country became by degrees more settled. The Macgregors had ceased to exist as a clan. The Macaulays and Buchanans were beginning to be less powerful, and the estate of the Macfarlanes, poor in every produce but men, was inadequate to maintain its lairds in wealth when they could no longer lay their neighbours under contribution. The lands of these chiefs have

now mostly passed to strangers, and even the representation of their several houses is in a great measure in abeyance.

Meanwhile, the domain of Luss has extended itself on all sides, and, in addition to its having stretched itself over nearly the whole territories of Macfarlane and Macaulay, it has swallowed up the smaller possessions of a swarm of petty proprietors in the parishes of Row, Luss, and Arrochar. Sir James Colquhoun is now in possession of the whole of this parish, with the exception of the estate of Ardincaple, the property and beautiful residence of Lord John Campbell.

Antiquities.—The only buildings of any antiquity of which any portion still remains, are a part of the present Castle of Ardincaple, supposed to have been built about the twelfth century and the imperfect walls of a chapel at Faslane. The author of Caledonia says that this chapel was dedicated to St Michael. The date and occasion of its erection are unknown, but it is probable that it was built for the convenience of the Lennox, while they were either constant or occasional residents at their castle of Faslane. Attached to the chapel is a burying-ground, which has now almost ceased to be used. Of Faslane Castle, only the mound raised by its foundation is distinguishable. Similar traces of another castle called Shandon, are discoverable on the hill side above the modern house of Shandon. Its name, "The Old *Dun*," would lead to the supposition, that it was a still more ancient strong-hold than the castle of Faslane. But tradition has handed down no memorial regarding it to the present times, nor have any relics been found among its ruins to lead to any information concerning it.

Besides the Chapel of Faslane, there were of old three other chapels within the bounds of the parish; one of them in Glenfruin, either near the school-house there, or more probably on the farm of Balnock, on which there are still some remains of a burying-ground called Chapel Dermid. The other two were in the barony of Millig; the one of them on the farm of Kirk-michael, which has received its name from the saint to whom the chapel was dedicated, and the other on the farm of Millig, called also after the same saint, and till of late presenting some ruins.

Until a very few years ago, the only good houses in the parish were Ardincaple Castle, and the mansion house of Ardenconnel. Now, however, there are many very beautiful ones along the banks of the Gareloch, built on perpetual feu from the lands of Sir James Colquhoun.

III.—POPULATION.

In consequence of the very meagre and imperfect records of the parish, there are no means of ascertaining the population at remote and regular dates. In the former Statistical Account of the parish, it is said, that the number of inhabitants was 853 ; but it is not stated at what period this census was taken. About ninety years ago the number amounted to 1300, and about fifty years before this present date, it appears to have fallen to 1000. There can be little doubt that this decrease of 300 was owing to the enlargement of the farms and the ousting of cottars. In the Glenfruin district alone, it is almost within the memory of individuals still alive, that there were 45 families of farmers, besides a number of cottars ; now there are only 10 of farmers and 4 of cottars. In consequence, however, of the very rapid growth of the town of Helensburgh, the population doubled itself within the last forty years previous to 1831. It was in that year 2037. From 1831 till 1835, there was an additional increase of about 400, chiefly from the still greater growth of Helensburgh ; though partly also from the building of villas and cottages on the Gareloch. The present population may amount to about 2600. Of this number the burgh of Helensburgh contains 1400 ; the remainder are scattered over the landward part of the parish, and can scarcely be said to be in any part of it, a village population, unless indeed the few houses in the neighbourhood of the church of Row, and the increasing clump of cottages at Gareloch-head, may be called villages.

The average number of births may be about, - - - 50
 The average of deaths, - - - between 40 and 50
 The number of marriages, - - - 24
 In Helensburgh in the year 1835, there were under

5 years of age,	Males, 95	Females, 94
From 5 to 15,	173	157
15 to 25,	114	134
25 to 35,	103	119
35 to 45,	81	97
45 to 55,	54	51
55 to 65,	23	34
65 to 75,	14	21
75 to 85,	11	9
85 and upwards,	4	1
Total,	672	717

Of the females above 45 there were unmarried, 22 ; widows, 45.

Of the males above 50, there were 9 bachelors and 10 widowers.

Though we have stated the resident population of the parish to be 2600, it is increased by more than a half, probably two-thirds

of this number during about five months in the year, from the number of families who come for summer quarters and sea-bathing.

The only nobleman in the parish is Lord John Campbell, who usually resides at his seat of Ardincaple. But there is a considerable number of wealthy and independent families who have residences in it, and remain either the whole or the half of the year.

Language.—It would appear that, two centuries ago, or later, Gaelic must have been the language usually spoken. The first minister of the parish was at that time appointed to the charge in consequence of his being able to preach in the Irish or Gaelic. At present, however, that language has rightly given way to English, and is not spoken except by a very few families, who have brought it with them from their birth-place in the Highlands.

Like most of the districts in the neighbourhood of the Highlands, smuggling seems to have prevailed some time ago to a considerable extent. But, for some years, this degrading and demoralizing habit has been rapidly decreasing, and now it has almost ceased to be practised. It is much to be wished that the same thing may be said of poaching.

IV.—INDUSTRY.

Agriculture.—With the exception of Glenfruin, which is capable of being cultivated much more extensively than it is, the greater part of the land capable of bearing crops to any advantage, is either constantly or occasionally under cultivation. This, however, bears a very inconsiderable proportion to the whole extent of the parish. Within the last thirty years, there has been a very great improvement in the character and extent of the husbandry; chiefly from additional draining and fencing. But very much remains to be done in these respects, and the farmers both feel the evil, and look to the proprietor for more encouragement than they have hitherto had.

Of late, considerable and increasing attention has been paid to the breeding of cattle, both for the dairy and for feeding. Those for the dairy were, till within the last fifty years, mostly of the Highland breed. But now, with the exception of some of the moorland farms, they are almost all of the Ayrshire, though not very pure. The cattle fed for the market are of the West Highland stock, and both kinds promise to be still further improved, in consequence of the late formation of an agricultural association of the parish of Row, Luss, and Arrochar.

Rent.—The average rent of arable land per acre may be stated at L. 1, 5s, the highest at L. 3. Average rent to the farmer of grazing a full-grown ox or milk-cow is about L. 6; of black cattle, not housed in winter, L. 3, 10s.

The sheep are almost all of the black-faced breed. There are, however, a few Cheviots. The average rate of grazing a full-grown one to the farmer is about 5s. Male farm-servants who live with the farmer, receive at an average L. 8 in the half-year, and female farm-servants receive L. 4. Masons, carpenters, and other artisans are usually paid 3s. 6d. per day. Leases run for the term of nineteen years, and hitherto they have not been understood to have been very unfavourable to the tenant. A few of the farm-buildings may be considered as tolerably good. But the greater number of them are very much otherwise. It can scarcely be said that there are any unconquerable obstacles in the way of a much greater improvement of the land. With the facility of obtaining manure from Greenock, and lime in the parish, and from Ireland by sea, willing tenants, and an encouraging landlord, might considerably change the face of the fields to the better. But both landlord and tenant must move together.

Quarries.—Lime is occasionally wrought, but in consequence of the superior quality of the Irish lime, and the facility and cheapness of its carriage by water, the lime quarries in the parish are neither constantly nor extensively worked. Slate also has been occasionally wrought, but it, too, is inferior in quality, and therefore little called for. In the southern part of the parish, there is a coarse freestone, occasionally quarried for building. All attempts to obtain coal have failed.

Fisheries.—The fisheries in the Gareloch and Loch-Long are not very profitable, nor much attended to, except for a short time during the spring and early part of the summer. Neither the quarries nor the fisheries, therefore, add much to the produce of the parish. Nor does it grow more grain, with the exception, perhaps, of a little barley, than is sufficient for the consumption of the inhabitants, and the use of the farmer's establishments. There may be about L. 1000 worth of potatoes sent out of the parish yearly, and L. 500 worth of hay. These sums, with the addition of somewhat more than L. 100 from the timber and copse-wood cut, may probably be conceived as the whole produce of the parish, not consumed or used in itself. The rental of the parish may amount to between L. 4000 and L. 5000, nine-tenths of which is drawn by

Sir James Colquhoun—who probably receives upwards of L. 1500 additional arising from the feus in Helensburgh and the landward part of the parish.

There are no manufactures or public works in the parish, and consequently a great want of employment for the many individuals in Helensburgh, whose labours are but partially required in the neighbourhood. There are a few coasting and coal vessels, but these are inconsiderable in number.

V.—PAROCHIAL ECONOMY.

The only town in the parish is Helensburgh, a rapidly increasing watering-place. It was founded by the first Sir James Colquhoun, and was named in honour of his wife Lady Helen Sutherland. It was created a burgh of barony by charter in the year 1802, and has a provost, two bailies, and four councillors. It has the privilege of holding a weekly market and four annual fairs. There is a small and incommodious pier, principally used by the steam-boats, of which several sail daily to Glasgow. There is also a daily post from Dumbarton and Greenock. The turnpike road from Dumbarton to Arrochar traverses the parish for about sixteen miles. A new line of road from Helensburgh across the hill to Luss and Balloch ferry, affords an easy communication with these places.

Ecclesiastical State.—The greater part of this parish was at one time included in the older parish of Roseneath, and an appendage of the Abbey of Paisley. The remainder of it was an annexation from the old parish of Cardross, which formerly stretched along Glenfruin, and crossed at the top of the glen to the shore of the upper part of Gareloch, and also to a part of the coast of Loch-Long. Before the formation of this parish, the Presbytery of Dumbarton, the General Assembly, and the Commissioners for planting of Kirks, took various plans into consideration from the year 1639 and following years, for the purpose, not only of remedying the inconveniences arising from the extent and anomalous boundaries of Roseneath and Cardross, but also for making the new parish of Row from a part of both. In 1643, Cardross received lands from Roseneath towards the west as far as its present boundary, and gave up in exchange Glenfruin and the lands on the shores of Lochs Long and Gare. And in 1648 the boundaries of the new parish of Row were finally settled, and a deed of erection for the church was procured and immediately acted upon. In this year also Mr Archibald M'Lean, the first minister, was translated to

it from the parish of Kingarth. It appears that the formation of this parish was mainly or rather wholly owing to the laird of Ardincaple, who generously built the church at his own expense, besides giving land for it and for the glebe. Whether the situation of the church was ever a convenient one for the inhabitants is more than questionable, from its position on the western skirts of the parish, and its being twelve miles from its northern termination. Now, however, that the burgh of Helensburgh and its immediate neighbourhood have a population of about 1600, and those at the distance of between two and three miles from the church, there can be no doubt as to its present inconvenient locality. The present church was built in 1763, and an addition made to it in 1827. There are nearly 700 sittings, the larger portion of which are common. The present manse was built in 1829. The glebe contains about 10 acres, and is worth L. 20 per annum. The amount of stipend is 98 bolls of meal, and L. 55, including communion elements. Its average for the last six years has been L. 136, 5s. 11d.

Last summer a church in connection with the Establishment was built at Gareloch-head, about six miles from the parish church. It must, however, continue for some time merely a preaching station, in consequence of a want of an endowment, and the difficulty of obtaining a bond for the stipend of an ordained minister. It is, however, an essential blessing to that district of the parish, and is a gratifying memorial of the liberality of many of the generous feuars in the parish, by whose large subscriptions it was chiefly built.

There is one place of worship in Helensburgh in connection with the Old Light Burghers, and another in connection with the Independents. The stipend of both of the ministers arises from the seat-rents and collections on Sabbaths. That of the first amounts to L. 100, and of the second to L. 70. The number of communicants in the Established Church amounts to 600; that of the Old Light Burghers from this and the neighbouring parishes of Cardross and Roseneath, amounts to 115; those of the Independents to 32.

Education.—There are at present 8 schools in the parish. Of these, one is the parochial school, situated near the church of Row. The salary of the teacher amounts to L. 36; and the school fees average about L. 30. Two of the remaining ones are endowed each with L. 10 annually, arising from a piece of land in Glen-

fruin, mortified for this purpose about seventy years ago by Mr Glen of Portincaple. Three others are assisted with yearly donations, and in one of them sewing and knitting alone are taught. The remaining two are wholly unassisted, and one of them is in a great measure a boarding establishment: There is no part of the parish so far from some one of the schools as to feel any serious inconvenience from its distance from the means of education, and the consequence is that there is not perhaps a single individual born in the parish and upwards of ten years of age, who cannot read. There are, however, a few grown persons, that have come to reside in the parish who cannot read.

There is a public library in Helensburgh of considerable extent, and a congregational one connected with the Established Church, formed about three years ago.

Savings Bank.—A savings bank has been established for some years in Helensburgh.

Poor and Parochial Funds.—At present, there are 26 individuals upon the regular poor's roll. Of these, 4 are orphans and one insane. But there are almost always several individuals or families who receive occasional aid to a considerable extent. The regular poor receive from 6s. to L. 1 a quarter, according as their circumstances and merits may require. The sum given annually to the regular and occasional poor, for some years, averages nearly L. 120. This amount is obtained without any assessment. The ordinary Sabbath day collections yield about L. 80. The remainder is got from the rent of a few sittings let in behalf of the poor, from marriage and mortcloth dues, and from the interest arising from a small fund belonging to the poor. The expenditure, however, is now threatening to exceed the income, and must ere long do so, unless some means are taken to arrest the increase of the growing number of paupers; and by far the most effectual means would be to introduce some public works, and curtail both the facilities and the places for dram-drinking. There is still a disposition on the part of the poor of a respectable character to refrain from asking parochial aid, except under strong necessity. But with those of idle and intemperate habits there is scarcely a shadow of such delicacy either here or any where else. The dram-drinker has usually drowned every good feeling in his progress to poverty.

There is a lock-up house in the parish. But there is no regular jail, although there is frequent occasion for it for the visitors of the public houses, particularly for the drunken vagrants who visit

Surface.—The superficial character of the ground does not admit of much variety, rising on either hand from the Clyde and the Leven by a gradual ascent. The ridge thus formed does not present much irregularity, and is not intersected by any valleys of importance, nor by any considerable streams or lakes. Its greatest elevation, at the summits of the Kiliter and Carman, is 948 feet. In tracing the shores of the Clyde, we find extensive banks of blue adhesive clay, stretching more than half across the bed of the river, which is from one to two miles wide. They are covered with a few inches of sand interspersed with shingly stones, and are overflowed at high water. By judicious embankments a large portion of this unprofitable surface might be gained and improved. The only remarkable feature on this coast is Ardmore, “the great promontory,” which forms a conspicuous object in the Frith. Originally an insulated rock in the river, the gradually receding waters have left it surrounded by a considerable flat, and united to the mainland by a narrow isthmus. The rock is nearly circular, rising precipitously about 40 feet, and affording on the top a table of good soil. It is a muddy red breccia or puddingstone, imbedding rounded pebbles chiefly of quartz, being the same formation with the nearest point of the Kiliter range, from which it is distant about half a-mile. This head-land may be considered the limit of the river Clyde on the northern shore, as the Frith here suddenly doubles in breadth, and assumes the character of an arm of the sea.

Geology.—The geological character of this parish belongs to the secondary formation. The predominating rock is freestone, which towards the east end is of a reddish colour and friable quality. At Keppoch it occurs of a bluish gray colour and better description, in contact with the breccia of the Kiliter, which we have already described. It is remarkable that both of these run in parallel lines or dikes to the north-eastward; the former appearing at Tullichewan, Balloch, and Buchanan, while the latter can easily be traced from Ardmore, by the Kiliter and Inchmurrin, to Balmaha. On the north-western side of the Kiliter, we find a considerable dike of jasper, of a coarse hard quality, interposed between the breccia and the sandstone, the latter of which again appears on the estate of Camis Eskan, containing veins of limestone. This last occurs in the glens, and has occasionally been worked; but its admixture with sand and magnesian earth renders it better for the purposes of building than for manure.

Soil.—The soil is generally of a light gravelly description,

sparingly covered with vegetable mould. This is particularly the case towards the shores of the Clyde, where, in some instances, it is thinly strewn upon the rock. On the higher land it becomes deeper, and often rests upon till. The hills present a surface of elevated moor, rarely interrupted by moss or rock, a considerable part of which might be rendered arable. The vale of Leven consists of a channelly alluvial soil, of sufficient depth and fertile quality.

Climate.—The climate is healthy, and free from predisposing tendency to any particular diseases. It partakes of the same general character which is observable over the south-west coast of Scotland, being mild and humid, with frequent showers rather than heavy rains. Frost is seldom severe or long-continued, and heavy falls of snow are almost unknown. The annexed table, constructed from careful observation by Mr Dunlop of Keppoch, will afford a view of the weather for the seven years from 1826 to 1832.*

Years.	Barometer		Thermometer.		Winds.				Weather.			
	Highest.	Lowest.	Highest.	Lowest.	N. to E.	S. to E.	N. to W.	S. to W.	Calm.	Quite Fair.	Showery.	Wet.
1826	30.100	28.44	84	18	47	78	153	61	26	204	123	38
1827	30.100	28.400	77	19	35	86	153	63	28	187	124	54
1828	30.100	28.100	81	23	39	119	127	61	19	194	117	54
1829	30.100	28.400	76	21								
1830	30.100	28.400	76	21½	31	79	156	69	30	178	119	68
1831	30.100	28.400	79	24	28	99	152	68	18	192	116	57
1832	30.100	28.700	76	23	93	62	161	43	7	168	142	56

II.—CIVIL HISTORY.

No general history of this parish has been given to the public. There have, however, been compiled two statistical accounts of Dumbartonshire, from which much information applicable to Cardross, may be collected. The former of these was drawn up by Mr David Ure for the Board of Agriculture in 1794; the other was published in 1811, and was the joint production of the Reverend Andrew White, minister of Kilmarnock, and the Very Reverend Principal Macfarlan of the University of Glasgow. The localities of the parish may also be illustrated from the map of the county as surveyed by Mr John Wood in 1818.

Situated at a distance from the capital, and from all the usual royal residences, as well as from the ceaseless wars that ravaged

* Mr Dunlop's table since 1832 presents very similar results, and need not be added.

the border counties, Dumbartonshire was seldom agitated by the events that belong to the page of national history. To the parish of Cardross this want of historic interest belongs in a remarkable degree, as it rarely was the scene even of those petty struggles, by which rival chiefs of robber clans occasionally disturbed the peace of the neighbourhood. Its peasantry were not unfrequently visited by these mountain marauders, at the expense of their cattle and stock of all sorts, but their pacific habits prevented them alike from defence and retaliation upon their lawless visitors. It is, therefore, from family records and private incidents that the course of events in this parish during past ages must be traced; and among these the genealogist will find enough to reward his researches.

Eminent Men.—The families particularly worthy of notice are those of Dennistoun of Dennistoun, Spreul of Dalquhurn, Napier of Kilmahew, Bontine of Ardoch, Noble of Ardardan, and Smollett of Bonhill.* The last has been illustrated by Sir James Smollett, a commissioner for the union in 1707, and a politician of considerable adroitness; and still more by his grandson, Dr Tobias Smollett, one of the greatest names in Scottish literature. A Tuscan column connects his memory with his native vale, and an authentic memoir, prefixed to Dr Anderson's edition of his works, will supply to his admirers those particulars of his life, which want of space compels us here to omit. No portrait of either of these distinguished men is found in the possession of their representative, and unfortunately the family papers contain very few remains of the author of Roderick Random. The family of Mr Dunlop of Keppoch, although recently settled in Dumbartonshire, has given to the Church and universities of Scotland, a perhaps unexampled succession of distinguished ornaments. Principal Carstairs was nearly related to them by marriage, and Mr Dunlop possesses many of his original papers, which are not noticed in the published selection. He also has at Keppoch an original portrait of Carstairs, and the thumbikins by which he was tortured.†

Antiquities.—Did our limits permit us to enter at large upon

* The families of Dennistoun, and Spreul, and Napier have now left the parish; and to this list may be added Campbell of Camis Eskan, Geills of Geilstoun, and Buchanan of Drumhead.

† From the correspondence of Principal Dunlop, the curious fact appears, that in the name of the Darien Company, he bargained with the surrounding proprietors to retain Keppoch Bay as the harbour for their shipping.

the history of landed property, and the genealogies of its proprietors, we might collect much to interest the lovers of such details : but in the absence of other striking objects of antiquity, we shall notice only the hunting-seat of King Robert Bruce, at which he spent the close of his glorious life, and where he died of leprosy in 1329. The wooded knoll, at the first milestone from Dumbarton along the Cardross road, bears the name of Castlehill, although there have not been any ruins visible in the memory of persons now alive. Retiring from the cares of government, this chivalrous monarch here sought the relaxation of the chase, varied by excursions on the water, for both of which the spot was well adapted, while it was protected by the neighbouring fort of Dumbarton. The interest which attaches to the favourite residence of the Bruce is enhanced by the preservation, in the accounts of the high chamberlain, of many notices exhibiting the domestic arrangements of a royal abode in 1328. These have been given to the public in their original form, in the appendixes to Tytler's History of Scotland, Vol. ii. and to Pinkerton's History Vol. ii. The following specimens will be intelligible to the general reader :—To green olive oil for painting the royal chamber, 10s. ; to chalk for painting it, 6d. ; to a chaldar of lime for white-washing it, 8s. ; to tin nails and glass for the windows, 3s. 4d. ; to seeds for the orchard, 1s. 6d. ; to a house for the falcons, 2s. ; to a net for fish, 40s. ; to bringing the King's great ship from Tarbat, 28s. ; to two masts for the ships, 8s. ; to conveying Peter the fool to Tarbart, 1s. 6d. *

Modern Buildings.—The mansion-houses in the parish of Cardross do not present any remarkable features ; those of Ardoch and Kilmahew, now abandoned, are indifferent specimens of the old Scottish country house ; that of Camis Eskan has grown, by frequent additions, into a commodious residence ; those of Keppoch and Ardmore are modern and comfortable buildings. Bloomhill House, recently built, the seat of Alexander Ferrier, Esq. is perhaps the most beautiful villa on the Clyde.

Parochial Registers.—The only parochial registers are those of births and marriages, which have been preserved since 1687.

III.—POPULATION.

The increase of population from 1821 to 1831, as exhibited by

* It is almost unnecessary to remark, that these sums are in Scottish money, being in value one-twelfth part of the corresponding sums in the Sterling coin. The Tarbart here meant is on Lochfyne.

the government census, is 491. It has taken place chiefly in the villages of Renton and Bridgend; but the hamlet of Cardross has, during the same period, received considerable accessions. The return of 1831 may be thus classified :

	Houses.	Families.	Males.	Females.	Total persons.
Renton,	185	349	898	962	1860
Bridgend,	35	134	286	349	635
Landward,	154	190	555	546	1101
Total,	374	673	1739	1857	3596

From 1824 to 1831 inclusive, the yearly average of registered births was $64\frac{2}{3}$; of marriages, $25\frac{2}{3}$. No register of deaths is kept. The following table exhibits the only return of ages and occupations, taken up in 1831.

Number of illegitimate births in the parish during the three years preceding 1839, 26.

	Males above 20.	Superan. males.	Female servants.	Occupations of families.		
				Agricul- ture.	Trade.	Other occu- pations.
Renton,	403	29	21	53	174	122
Bridgend,	124	12	14	7	63	64
Landward,	283	22	78	95	30	65
Total,	810	63	113	155	267	251

No peers are landholders in this parish; the landed proprietors are 13, and most of them resident. All their rentals are above L. 50 a-year.

Character of the People, &c.—No Gaelic has been spoken in the parish for some generations past. The people generally are in circumstances of comfort; and the influx of strangers to the sea coast, and to the works on the Leven, has introduced a taste for dress not known in the more remote parts of Scotland. On the whole, they are contented and respectable, and it is hoped their character is improving. In particular, illicit distillation, formerly the bane of the district, has entirely ceased.

IV.—INDUSTRY.

Agriculture.—

Number of acres imperial, either cultivated or occasionally in tillage, about	6500
constantly waste or in pasture, about	4000
that might be cultivated with profit, about	2000
under wood, about	300

The progress of agricultural improvement throughout this parish was, until lately, somewhat tardy. It is true that near Dumbarton were some small properties, belonging for several centuries to substantial burghers of that town, who, while they

spent upon these the time they could spare from the pursuits of trade, brought along with them a share of its profits to aid in "subduing the soil." But, generally speaking, land was owned by lairds, whose scanty rentals gave them little opportunity for speculative ameliorations, and was occupied, in minute subdivisions, by a race of wretched cottars, whose utmost hope was to scourge out of their crofts a bare pittance for the support of their numerous families, after paying in kind the stipulated *mail*. In the absence of all demand for labour, nothing flourished but indolence and idleness; and as the few necessities of life were obtained chiefly by barter, the circulation of money was scarcely known. A slight change for the better succeeded the rebellion of 1745; but until the end of last century, the outlay of proprietors scarcely extended beyond the *mains* or home-farm; and the system of small possessions was rarely disturbed. During the last forty years, however, improvement has advanced with rapid strides. Several of the ancient landholders have increased their wealth from incidental sources, while others have sold their estates to persons possessing the means of turning them to better account. The money which they have thus been enabled to spend on roads, inclosures, buildings, and agriculture, has not only augmented the actual value of the soil, but has, by circulating through the district, laid the foundation of capital, which, rapidly accumulating from the annual returns of produce, has given to the tenantry the means of co-operating with their landlords. Large tracts of waste land have thus been brought into tillage, while that which was formerly cultivated has been rendered infinitely more productive by draining, leveling, and manuring.* The cottaries have been converted into farms; the crofts into convenient fields: the use of drift sea-weed has either been superseded by lime and dung, produced in the farm-yards or imported from Greenock, or, where it is continued, it is purified by being rotted into composts. The ancient occupiers, in order to make way for substantial tenants, have, from starving on their pendicles, been converted into day-labourers or artisans, and so enabled to earn a comfortable subsistence. Substantial steadings have replaced the dry-stone hovels of this class, and begin to engraft upon the proverbial filth of Scotland habits of neatness and comfort. In these, as well as in many other re-

* Draining, on the improved system, has been lately carried on to a large extent by Mr Campbell of Camis Eskan and other proprietors, and is now in very general use in the parish.

spects which cannot here be particularized, a great change has been progressively effected, and continues in each year to advance, on every estate where either the high moorlands, or the neglected shores, present opportunity for extending the operations of the plough. In a few places, however, the inconvenience of small possessions, and occupiers destitute of capital and spirit, continues to be felt; and in others, short leases, in which no order of cultivation is enjoined, still permit the abuses of the old system. But most of the new tacks are drawn for nineteen years, and stipulate for the most approved rotation of crops, and in almost every instance for a fixed money-rent.

Live-Stock.—Although a considerable extent of the parish consists of moorland pasture, it is employed in grazing cattle or sheep purchased from the Western Highlands, rather than in breeding them. The low country is in many respects well adapted for dairy husbandry, although in very dry summers the grass on the light soils occasionally gives way. It has not, however, been much allotted to this object, although most of the tenants, to a certain extent, combine this branch of rural economy with their method of agriculture; and more attention has lately been paid to it, by introducing animals of the finest breed from Ayrshire and other dairy districts, and by cultivating the most approved bulbous roots and green crops. The indigenous horses were of a small size, between the cart-horse and the Highland poney, and combining the faults of both. The race has been improved by a cross with the Clydesdale stock; and those now bred in the district are of a serviceable quality, although, in so hilly a district, the judicious introduction of “a dash of blood” might probably be of advantage. Stock of all sorts is improving, under the auspices of an agricultural association recently formed in the county, in connection with the Highland Society of Scotland.

Woods.—The district of Dumbartonshire west of Leven is remarkably adapted for the growth of wood, particularly of oak, copse, and the evidence of various ancient charters attests that here were situated the principal forests of the Lennox. In Cardross, however, the extent of natural wood is now not great, and until lately it has been too much neglected. The most thriving woods are on the estates of Dalquhurn and Camis Eskan, the latter of which have been considerably extended by plantations chiefly of larch and fir, but into which oak has now been introduced. Some land has also been planted of late on the estates of Mildovan,

Kilmahew, Ardoch, and Kipperminshock, but upon the whole planting has not as yet been sufficiently attended to.

Fisheries.—The salmon-fishings of the Leven were formerly of considerable value, but are now much fallen off. They belong to the corporation of Dumbarton, and to Sir James Colquhoun of Luss, but they scarcely fall within this parish. The practice of fishing by stake-nets on the shores of the river was some years ago suppressed by a judgment of the Supreme Court; but bag-nets have very lately been introduced in the open Frith below Ardmore, and promise to render very valuable salmon-fishings which have hitherto not been available to the proprietors. Of the *yairs* mentioned in the former Statistical Account of this parish, those of Ardmore and Colgrain are kept up, but they are no longer of any value beyond the casual supply of a few salmon or trouts.

Manufactures.—The only manufactures of Cardross are those of Renton on the Leven, and consist of calico-printing and bleaching. These branches are carried on to a great extent along this river, whose pure water and powerful stream are peculiarly adapted for them; but as most of the works are situated in Bonhill, reference is made to the notice of them contained in the account of that parish.

V.—PAROCHIAL ECONOMY.

Market-Towns.—The only market-town in this district is Dumbarton, adjacent to the eastern extremity of this parish; but there is a good deal of communication with those of Greenock and Port-Glasgow, on the other side of the Clyde, and a ready consumption is found for the produce of the western portion of the parish at the thriving watering village of Helensburgh. The villages are Renton, already mentioned as the site of a manufacturing population (which was founded in 1782 by Mrs Smollett of Bonhill, and named after her daughter-in-law Miss Renton of Lammerton,) and Bridgend, a suburb of Dumbarton.

The turnpike roads are those leading from Dumbarton to Renton, two and a-half miles, and to Helensburgh seven and a-half miles. Along the former of these, coaches run in summer to Lochlomond, but the only public communication towards the west is by the steam-boats on the Clyde. There are daily posts along both of these roads, the post-town being Dumbarton. The chief statute labour roads lead from Cardross to Renton, and from Ardmore ferry to Balloch ferry, both of which are undergoing considerable improvements.

Ecclesiastical State.—The parish of Cardross did not originally extend along the Clyde, beyond the site of the modern church, but some detached lands in Glenfruin belonged to it. In 1643 a new arrangement, under the sanction of the Commissioners for the plantation of kirks, assigned to this parish its present bounds, and threw Glenfruin into that of Row. The church was at the same time moved from the point opposite Dumbarton to its present situation, which is the most central that could be found. It contained about 450 sitters, and, being found too small, was, in 1826, replaced by the present building, which was erected with considerable taste, and can accommodate above 800 persons. The average number of the congregation is from 750 to 800; of communicants about 500. The Crown is patron, and the minister is titular of the teinds. The stipend amounts to 11½ chalders, besides an augmentation of three which was obtained in 1814, but which has never yet been followed up by a locality, chiefly on account of the difficulties arising out of the arrangement of the parish in 1643. The glebe contains 9½ acres of arable ground, and the manse is believed about a century old. There is now a regular missionary connected with the Establishment, residing in Renton.

At Renton is a chapel, in connection with the Associate Presbytery, with a congregation of about 400 in attendance on Divine worship: the minister has L. 120 a-year, with a manse and glebe. There is at Bridgend a congregation of the Relief body, of whom about 600 attend worship. The minister is understood to have a house and about L. 125 a-year. These salaries are paid by the respective congregations.*

Societies.—The religious societies are, a Bible society, formerly drawing about L. 20 a-year, but which has not been in operation for the last two years; and a Bible and Missionary Society at Renton, the income of which is L. 30. There is now also a society connected with the four schemes of the General Assembly, and another for the promotion of Female Education in India.

Education.—There is a parish school, of which the teacher draws about L. 34 of salary, and L. 24 of school fees, besides L. 15 as the average value of some ground; bear and money mortified in the seventeenth century by the Napiers of Kilmahew. His emoluments as clerk to the session, and to Mrs Moore's trust,

* There are about 470 families nominally connected with the Established Church, and there are about 270 families nominally connected with Dissenters and Seceders: these are almost entirely confined to the villages of Renton and Bridgend, which lie in the very confines of the parish, and upwards of three miles from the parish church. —(1839.)

may amount to L. 25 more. There are five private schools, the emoluments of which are derived from fees, and vary from L. 15 to L. 70. The usual branches are taught, and at the parish school, the annual rate of fees is, for English reading, 10s.; for writing, 12s.; for arithmetic, 14s.; and for Latin, 16s. There is, on the whole, a readiness to profit by these ample opportunities of education, and there are few persons who cannot read and write.

Libraries.—Three libraries have been established: in Renton, a general subscription library, containing 1000 volumes, and a Sunday school library, consisting of 200 volumes; at Geilstown, a general library for the landward district, lately established, and already possessing upwards of 400 volumes.

Funds for Charity.—The poor of this parish have hitherto been supported without the aid of compulsory assessments. The weekly collections in the parish church amount on an average to from L. 100 to L. 120 a-year; and there is received from proclamations of banns, mortcloth dues, and rent of church seats, a farther sum of about L. 15. The number of poor upon the session roll is about 70, who receive on an average about 6½d. a-week. When a deficiency of funds occurs, the heritors regularly come forward with voluntary contributions. In 1690, a legacy of L. 500 Sterling was bequeathed by Mrs Jane Moore, to be invested in land for behoof of the poor of that part of the parish of Cardross lying between Auchenfroe and Keppoch. It was applied to the purchase of Ballimnoch, the present yearly rent of which is L. 228; besides the dividend arising from about L. 1000 invested in the three per cent. consols, which was obtained a few years ago by the sale of the freehold superiority of the estate. The trustees are the minister, heritors, and kirk-session. There are 28 paupers on the roll, among whom is divided L. 217. The ordinary expense of management is limited to the clerk's salary, of L. 7, 7s.

In this parish there are no public charitable institutions, friendly societies, savings' banks, prisons, or fairs. Considerable exertions have been made to check the increase of public-houses, and, excepting in Renton, the number is moderate. An ample supply of coals is brought down the Clyde, at a moderate expense of water carriage.

On the whole, the parish of Cardross has made great advances in general improvement and prosperity since the former Statistical Account was drawn up, and may be reckoned one of the most beautiful on the Clyde.

Revised February 1839.

PARISH OF ARROCHAR.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. PETER PROUDFOOT, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—ADOPTING the statement given in the former Statistical Account, Arrochar, formerly written Arrocher and Arroquhar, “ signifies a high or hilly country ; it is generally pronounced in the Gaelic language *Arrar*, which is a contraction of *ard thir* ;—*ard* signifying high, and *thir* a country.” The name is very descriptive of the general appearance of the parish, which is high and mountainous, and presents very little low or arable ground.

Extent, &c.—The parish is about 15 miles in length, exclusive of the farms of Ardleish and Doune, which lie on the east side of Loch Lomond, and commencing about two miles beyond its most northern point, extend down its eastern shore five or six miles, and form the boundaries of the properties of Sir James Colquhoun of Luss, Bart. and His Grace the Duke of Montrose, and also of the counties of Dumbarton and Stirling. The mean breadth of the parish may be computed at 3 miles : and it contains a surface of somewhat more than 48 square miles. It is bounded on the east by Loch Lomond, the farms excepted which stretch down its eastern shore, which are bounded by the counties of Perth and Stirling ; on the south, by the water of Douglass and part of the parish of Luss ; on the west, by Loch Long, and part of Argyleshire ; and on the north, by the parish of Strathfillan in Perthshire.

Topographical Appearances.—Its form is peculiar ; towards the upper and lower ends of the parish ; there is a considerable extent of mountainous country, while from Tarbet on Loch Lomond side, to Arrochar on Loch Long side, there is only a small isthmus of not more than a mile and three quarters. Ben Vorlich is the highest mountain in the parish. It is distinguished for the richness of its pasture, its rare and varied botanical productions, and rises about 3000 feet above the level of the sea. The parish is so mountainous, that there is only a small proportion of arable ground, not more than from 300 to 400 acres.

There are no caves that require any particular notice. Tradition says that there was one of considerable extent in Ben Vorlich, and another of smaller dimensions, on the farm of Stuckindroin, the scene of some tragical event.

The extent of coast along Loch Lomond on the east is nearly 14 miles, and on the west along Loch Long about 3 miles. The shores of Loch Lomond are sandy, flat, and occasionally rocky, with many most beautiful headlands. There are small bays at Cambusnaglass, Farkin, Tarbet, Inveruglass, Ardvorlich; and there are three islands in Loch Lomond, which may be considered as belonging to Arrochar.

The climate is generally mild, but variable. Frosts, though occasionally severe, are seldom of long continuance. Snow seldom lies above a few days upon the low grounds. Colds in winter and spring are sometimes general, and then they usually assume the character of influenza; inflammatory attacks were more frequent some years ago than at present. Typhus fever occurs occasionally, but has been confined almost always to one family, and never extended to more than two families in any one season, for upwards of twenty years.

Loch Lomond, the eastern boundary of the parish, is 24 miles in length, and in some places seven miles broad. From Lower Inveruglass, where the parish of Arrochar commences, up to near its northern point, it is of considerable depth. Opposite the point of Farkin, about a mile and a-half from Inveruglass, it is 66 fathoms, a little farther north 80 fathoms deep; for about a mile south of Tarbet, it is about 86 fathoms deep; but about 2 miles north from it, opposite Alt Gary, it is 100 fathoms, which probably is its greatest depth; beyond that, its depth gradually diminishes to its northern end. It is almost unnecessary to add, that the scenery of Loch Lomond is singularly bold and beautiful, and for extent, variety, and magnificence, is not perhaps equalled or surpassed by any Lake in Great Britain. Loch Long, which constitutes part of the western boundary, is from 20 to 22 miles in length, and at some parts may be about 2 miles in breadth. Its depth in the immediate neighbourhood of Arrochar may be stated from 15 to 20 fathoms. Its shores are occasionally sandy, but their general character is rocky. There are several magnificent points in Loch Long, the opening of Loch Goil, and the bold and splendid scenery towards the head of Loch Long, are objects of general attraction and admiration.

There are no rivers in the parish that require particular notice.

The water of Falloch, which rises and falls into Loch Lomond at its head,—of Inveruglass, which runs into Loch Lomond at Upper Inveruglass,—of Douglass, which enters the same at Lower Inveruglass, with the water of Linnhe that flows into the head of Loch Long,—are not remarkable for either length, depth, or breadth. There are several small but beautiful cascades in the parish.

Geology and Mineralogy.—Except where in one or two places it is traversed by a whin dike, mica slate is the only rock formation of the parish,—extending from the sea level to the summit of the highest hills; the schistose laminæ are usually in parallel layers; but the section made by the new road along Loch Lomond to the foot of Glen Falloch presents them in every variety of contortion. Nor can there be any where a better field for studying the peculiarities of this primary rock so prevalent in the mountainous regions of our country. So far as we are able to judge, there are no indications of minerals, iron excepted; and these are but few and not very distinctly marked.

Zoology.—White hares and ptarmigan are to be met with on Ben Vorlich. Several of the farms rear sheep of excellent quality. In Loch Lomond, salmon, salmon-trout, pike, perch, powans, usually called fresh-water herrings, and eels, are to be met with. In Loch Long, there are salmon, salmon-trout, cod, sethe, lythe, ling, whittings, skate, halibut, flounders, soles, with herrings in their seasons, and almost all the varieties of white fish. Muscles are found in great abundance towards the head of Loch Long, oysters but in small quantities, limpets, wilks, buckies, spout-fish; but crab-fish or partans are seldom met with, in any degree of perfection.

Caterpillars are occasionally troublesome in gardens, and several years ago they attacked, in immense numbers, and with great voracity, the oak woods; and in many places the foliage was utterly destroyed.

Botany.—On Ben Vorlich, the following are among the more interesting plants:

Statice armeria	Saxifraga stellata	Oxyria reniformis
Juncus biglumis	————— oppositifolia	Circea alpina, vars. α and
————— triglumis	————— hypnoides, var.	β . Hook.
————— trifidus	platypetala	Lysimachia vulgaris
Luzula spicata	Hieracium alpinum	Lobelia Dortmanna
Vaccinium uliginosum	Gnaphalium supinum	Lythrum salicaria
Epilobium alsinifolium	Carex stricta	Solidago virgaurea
Draba incana	Rhodiola rosea	Hypericum Androssemum
Saxifraga nivalis	Cnicus heterophyllus	Parnassia palustris
————— aizoides		

II.—CIVIL HISTORY.

Land-owners.—Sir James Colquhoun of Luss, Bart. is proprietor of almost the whole parish. The only other (and the *only resident* proprietor) is John M'Murich, Esq. of Stuckgoun, whose property, though not extensive, is one of singular beauty and value.

Parochial Registers.—There are no parochial registers of a more remote date than 1761. They are not voluminous, and have not been particularly well kept.

Within these few years a number of houses have been erected for sea-bathing quarters; for which Arrochar presents excellent opportunities.

III.—POPULATION.

The population of Arrochar in 1755 amounted to 466
 1791, ... 379
 1831, 334 males, 226 females.
 Total 560.

The population has, of late, increased considerably. This arises from Arrochar having been of late years divided into smaller farms, and from the number of feus that have been taken. So lately as 1817, the land was almost all in the hands of one individual.

The yearly average of births for seven years may be stated at 12, marriages 3. No register of deaths has been regularly kept.

Number of persons under 15 years of age, as nearly as can be ascertained,	147
from 15 to 30,	54
30 50,	143
50 70,	50
70 and upwards,	14

There are 105 families; 96 inhabited houses, and 6 uninhabited houses, at least for one part of the year; but three of these are usually occupied during the summer season. There are no fatuous, deaf, blind, or dumb persons in the parish.

English and Gaelic are generally understood; but while there are no individuals that cannot speak and understand English, there is a considerable number that have no acquaintance with Gaelic. Within the last forty years, Gaelic has rapidly lost ground, and will, ere long, as in other parts of Dumbartonshire, be known here only as a matter of history.

The inhabitants are shrewd, moral, and professedly religious. Poaching in game and salmon fisheries are now almost unknown.

IV.—INDUSTRY.

There are fourteen farmers. The servants are generally shepherds, though they also assist in the ordinary work about the farm, and may amount to about 16. Cottars are occasionally but not permanently employed in farming occupations. There are no

manufactures. There are 3 grocers, 7 public-houses, 5 of which are worse than useless, and ought to be abolished ; but two are necessary,—the inns at Tarbet and Arrochar. There are 3 tailors, 6 shoemakers, 3 smiths, one master wright with 2 men. 23 individuals are employed in the herring-fishing.

Agriculture.—The parish consists of 31,011 English or 24,809 Scotch acres. There may be from 300 to 400 acres under constant or occasional cultivation. It does not appear that more ground could be cultivated with advantage. The number of acres under natural wood must be very considerable ; but the amount has not been ascertained. The oak woods are regularly thinned, and are in good order.

Rent.—The average rent of arable ground may be stated at L. 1, 10s. per acre. The average rent of grazing is L. 2 for an ox or cow ; ewe or full-grown sheep, 2s. 6d. to 3s.

Wages, &c.—Farm-servant's wages may be stated at L. 20 per annum. Labourer's wages vary from 9s. to 12s. per week ; wrights and masons, 15s. and 16s. per week. The sheep are of the black-faced breed. Cattle are either reared upon the ground, or brought when young from Argyleshire.

John M'Murich of Stuckgoun has reclaimed about 50 acres. The general duration of leases is nine years. Farm buildings and enclosures are capable of considerable improvement. There are no mines ; but there are two small whinstone quarries, formed from the whinstone dike that stretches from Loch Lomond to Loch Long.

Fisheries.—Herring fishing employs 23 hands, and is sometimes pursued with great success. Herrings are usually in Loch Long towards the beginning of June, and are in great perfection from the end of that month till the middle or end of July. When the fishing fails on Loch Long, the fishermen go to Loch-fine, and follow the occupation till the end of the season, in the neighbourhood of Tarbert, and from Tarbert they go onwards to the vicinity of Campbelton. Each boat upon an average will clear from L. 30 to L. 60. There are usually three hands in an ordinary sized wherry.

Produce.—The annual thinning and felling of woods may yield about L. 300 ; of fisheries, L. 320. The amount of sown produce the writer has been unable to ascertain. Small quantities of kelp were manufactured some years ago ; but, from not affording a remunerating price, the manufacture has been abandoned.

Navigation.—No vessels of larger size belong to the inhabitants than small fishing-boats. A steam-boat regularly plies from Glasgow to Arrochar, during the summer months, and vessels with coals and lime from Glasgow and Ireland come to Loch Long Head; and wool is frequently-forwarded from this to the Liverpool market.

V.—PAROCHIAL ECONOMY.

Market-Towns.—No market-town in the parish. The nearest market-towns are Helensburgh and Dumbarton,—the one seventeen miles and a quarter, and the other twenty-two miles distant. There are two small villages or clachans.

Means of Communication.—There are a daily post, and two carriers weekly. Steam-boats ply regularly, both on Loch Lomond and Loch Long during the summer months, commencing towards the middle of May, and ceasing about the middle or end of October. There are no mail or heavy coaches. But a coach runs for about three months in summer, every lawful day, from Inverary in the morning to Tarbet, and from Tarbet in the afternoon to Inverary. Chaises, gigs, and carts can at all seasons be readily procured at Tarbet or Arrochar inns.

The roads, with the exception of two miles on Loch Long side, are excellent. The roads on Loch Lomond side are about fifteen miles in length, and present singularly beautiful and splendid scenery. Bridges, with one exception, are in good repair.

Ecclesiastical State.—The church is situated rather at a corner of the parish; but the great body of the parishioners are at no great distance; some families are at the distance, however, of ten or twelve miles. The church was built in 1733, and will soon require a general repair. It is seated for about 300. The sittings are *all free*. The manse was built in 1837, and is an excellent house. The glebe contains about nineteen acres; but, with the exception of little more than three acres, is all hill ground, and of inferior quality. It is not worth more than L. 9 annually. The stipend is L. 231, with 12 bolls meal. This also includes communion elements. The teinds are exhausted. There are no government churches, no chapels of ease, no catechists, no Dissenting chapels, and no *Dissenters* within the parish.

Divine service is exceedingly well attended. In summer, the church is generally crowded to overflowing, and is felt *then* to be much too small; and, in the winter, when the weather is favourable, it is filled. Probable average of communicants, 216. No

religious societies; but collections are occasionally made for religious purposes, which have always been liberal.

Education.—There are one parochial, one privately endowed school, and a charity sewing school, to the teacher of which the Society in Scotland for Propagating Christian Knowledge gives a salary of L. 4 annually. In the parochial school, the ordinary branches of education are taught. In the private, in addition to these, practical mathematics, geography, Latin, and Greek are taught. The parochial teacher enjoys the maximum salary, and also receives L. 5 or L. 6 out of the bishop's lands, Dunkeld. The school fees must for a number of years have been very small. In the parochial school, the fees are, for reading, 3s. per quarter; reading and writing, 4s.; reading, writing, and arithmetic, 5s. The teacher has the legal accommodations.

The salary of the private teacher is L. 25 annually, which is paid by John M'Murrich, Esq. of Stuckgoun, a gentleman to whom the parish of Arrochar is under no common obligations. The fees in this school are, reading, 2s. 6d.; reading and writing, 3s.; reading, writing, and arithmetic, 3s. 6d.; and Latin, 5s. per quarter. Fees may amount annually to betwixt L. 15 and L. 20.

There are no persons in the parish between the ages of six and fifteen, that cannot read and write. There are three families towards the head of the parish, whose children can neither be benefited by the parochial nor private school.

Literature.—There is a small parochial library. No Friendly Societies, and no Savings Banks.

Poor and Parochial Funds.—Nine may be stated as the average number of the poor. The largest sum given, and that to a pauper, who is perfectly helpless, is L. 15; the lowest, L. 1. Collections for the poor average for several years, L. 30. These, with interest of money, L. 6, 6s., marriage and mortcloth dues of L. 2 per annum, have always proved sufficient for the support of the poor. For repairs upon houses allotted to the poor, funeral expenses, &c. the sum of L. 48, 6s. 2½d. was distributed last year; considerably the highest sum that was ever in one year expended for the support of the poor. There have been some remarkable instances of reluctance on the part of the poor to receive parochial aid. The old church officer, who was for upwards of two years confined to bed, had the utmost horror of coming upon the *poor's-box*; and, from his salary being continued, from marriage dues, from the kindness of the benevolent, and from that disposi-

tion which was indicated by his own significant expression, "*Providence is large, and I'll no come upon the poor's box,*"—he lived and died without receiving a farthing from the session, and he had safely husbanded, for many a long day, a guinea to pay for his coffin. It is to be feared that the feeling so remarkably exhibited by him is *gradually*, if not *rapidly*, diminishing.

Inns, &c.—There are two inns, one at Tarbet, which is too well known to require any favourable notice ; another at Arrochar, which has been lately built and opened, and is also under excellent management. These are necessary for the accommodation of travellers, who come from all quarters to visit the splendid and beautiful scenery of Inverary, Glencroe, Loch Long, Lochlomond, and Loch Kettwrin. There are five other public-houses, which, from the facilities they present, have a most pernicious influence, inducing and maintaining habits of intemperance. It were well for the interests of the community that these were instantly and for ever put down.

Fuel.—Coal is the common fuel,—which is usually shipped at the Broomielaw. The average price, at present, may be stated at 8s. 6d. the 12 cwt., carriage included.

MISCELLANEOUS OBSERVATIONS.

Within the last twenty years, the population has considerably increased ; and if the system of feuing is continued, there is every probability that a few years only will elapse, when Arrochar will become much more extended as a watering-place than it is at present. The character of the people, during the same period, has also considerably improved. A better conducted system of education, based upon Scriptural principles, has been introduced : and the establishment of a Sabbath school, which has been in existence for upwards of twenty years, and the regular church-going habits of the people, have, it is hoped, been attended with the most beneficial consequences.

March 1839.

PARISH OF ROSENEATH.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. ROBERT STORY, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name is found variously written in documents of different ages ; but latterly it is generally spelt *Rosneath*.* There can be no doubt as to the meaning of the first syllable *Ros*, confessedly a Celtic word, signifying a *point*,—a generic term simply, and not expressive of the elevation or depression, or of any particular shape of the headland to which it refers. Respecting the adjunct, *neath*, however, etymologists widely differ. Some derive the name from *Rhos-neth*, the *promontory* or *peninsula* of the *small dingle* ; and such an origin is probable from the fact, that in the southern extremity, there *is* a dingle, which, to persons approaching it from the east or west, must always have presented a striking feature in the aspect of the peninsula. Nothing could be more natural to the aboriginal Celts, emerging from the vast glens of the contiguous mountains of Cowal, than the exclamation, *this is the little dingle!*—and if tradition, tracing the route of the Cambuskenneth pilgrims to Icolmkill, be correct in representing Killcreggan, (in the immediate vicinity of the dell, and then the seat of a religious house) as one of their resting-places, they could not fail, in approaching it, to detect in the dingle a miniature resemblance of the larger hollow of Glenfruin, which might lead them to repeat and sanction, if not to *originate* the name. Others consider it to be derived from *Ros-neoth*, the *bare unwooded promontory* : such, however, in the judgment of Celtic scholars, are

* In the twelfth century, it is found with its modern orthography, *Rosneth*, in the grant by Amelic, the brother of Maldoen, the Earl of Lennox, of all its temporalities to the monks of Paisley. Afterwards *Rusneth*—*Rosneuth*, *nevet*—*negt*, obviously a contraction, and *Nenet*, probably from the mistake of a letter by the transcriber of the document. Then again *Nevino persona de Neveth* and *Gilmothe filio sacristi de Neveth*, *Michael Gilmodyn persona de Nenet*, are signatures to charters which identify the various orthographies with the name of one place. *Renyet* is another variety, and equally with the others differing from the Saxon or Celtic orthographies, assumed to be still more ancient.

exceedingly plebeian in their etymological solutions, and exhibiting no taste for romantic and interesting derivations. But, notwithstanding this impression, they may be correct in the present case; for it is certainly by no means improbable, that such an epithet would be suggested by the general aspect of the peninsula, before any art was employed in its cultivation or adornment. A third class, however, reject both these derivations, being confident that the modern orthography is a corruption of *Ross-na-choich*, or *the Virgin's promontory*: these would thus have us believe that the name has no connection with the natural appearance of the locality, but with a fact in its ecclesiastical history,—a church having at a very early period been dedicated to the blessed Virgin. It is of very little consequence which hypothesis be adopted: all seem to be equally probable. It may be said, however, that with neither of the two last does the natural appearance or ecclesiastical condition of the place at present correspond: for it is now clothed with artificial plantations of various ages, and singular beauty, while the venerable cruciform church, so consecrated, no longer exists—that which in superstitious times seems to have extended no ordinary sanctity, if it did not give a name to its sequestered environs, having been superseded more than seventy years ago by a Presbyterian parallelogram of the plainest description. The name is thus of a very conjectural origin: and it may farther be stated, that there are strong reasons for supposing that it is not descriptive of the promontory at all, but of a large district of country, comprising part of the lordship of Lennox, designated *Nevyd*; and that the peninsula of Roseneath is just the *Ros-de Nevyd*. So long, then, as the meaning of *Nevyd* is undetermined, we cannot fix the origin or import of the present name: but should it be equivalent to *Snowy*, which is very likely, then Roseneath might be translated the *peninsula of the snowy* district, which would be graphically applicable to its position in the gorge of the adjacent mountains, partly comprehended in that lordship: for in winter, especially after a snow storm, its aspect is very remarkable, extending its undulating surface darkly on the waters, while the snows are unmelted in the mountainous regions which surround it. But etymologies of the name seem quite exhaustless.

Extent and Boundaries.—The length is about 8 miles, and the breadth varies from about $1\frac{1}{2}$ to 2 miles. It is bounded on the east by the Gareloch; on the south, by the Clyde; on the west, by Loch Long; and on the north, by the parish of Row; being thus,

with the exception of the isthmus connecting it with the mainland of Dumbartonshire, entirely surrounded by water. Its form may be described as somewhat resembling that of a boot; in such a way at least, as to the eye glancing over the map of Europe, Italy has been supposed to do.*

Topographical Appearances.—The parish consists mainly of one continuous ridge, rising gradually from the level at its southern extremity, to the Gallowhill, and thence extending in undulating lines of various elevation to the hill of Tamnahara, which is the highest point of the peninsula, about 800 feet above the sea-level. With the exception of the level grounds, where the castle and policies are situated, and the few alluvial fields of the Clachan farm, contiguous to the church, the cultivated parts consist of acclivities from the lochs on either side. The whole of the more elevated tracts, comprising the summit of the ridge, and forming a kind of table-land, are covered with heath and morass; and from the edges of these, the enclosed and arable fields descend to the gravelly beach or rocky banks which skirt the shores.

The aspect of the whole parish is interesting and beautiful; to the south especially, where it is adorned with extensive plantations of various ages. The natural lines are of most delicate symmetry, and generally the plantations have been so felicitously arranged, as to give every advantage to that original and intrinsic beauty of the environs,—while the trees are so mingled, as to secure all variety of tint to the foliage in the transitions of spring and autumn.

It is often visited on account of its attractive scenery, and certainly nowhere in this or perhaps in any other country, does a locality of such limited extent contain within itself or command the prospect of a greater variety of interesting objects. Proceeding by any of the roads which intersect it, there is a succession of magnificent landscapes, abounding with whatever elements of sublimity and beauty the eyes delight to look upon; and thus, from

* Formerly the parish of Roseneath extended much beyond its present dimensions, and was designated in presbytery records and other documents of the time, “the parochin without and within the isle.” It is now limited to the isle alone, and that moiety without the isle forms now part of the parishes of Cardross and Row. The disjunction was effected in 1635. Considerable difficulties had occurred in accomplishing the new erection of the parish of Row, but at last a presentee was inducted on the express proviso that he should sanction the measure when otherwise matured; and, moreover, that he should denude himself of a portion of the teinds, to secure a competent living to the incumbent: while, on the other hand, the laird of Ardencape only consented to his admission, on the condition of his preaching alternately in the new kirk of Row, on the opposite side of the Gareloch, and therefore without the isle (except when the Marquis of Argyle should be resident in Roseneath,) without prejudiceto the course of the erection, &c.

such points as the Tower of the Castle—the Gallowhill or Tamnahara, commanding the most panoramic views, may be seen in one direction perhaps dying away in remote distances, such soft and graceful lines of beauty as vulgarize the most exquisite creation even of such a pencil as Claude; while at a glance of the eye elsewhere, sublimer forms rise to the contemplation than ever excited admiration around the bold and impetuous fancies of a *Salvator Rosa*.

Perhaps, in absence of more important materials of statistical record, an instance or two may be given of the effect of these remarkable scenes upon sensitive minds. A distinguished man, well known as an elegant religious author, and exhibiting in his works a peculiar delicacy of perception of natural beauty, sat and wept like a child, when he first looked down upon the Gareloch from Barmman, so singularly bounded by the Castle point, the promontory of Ardmor, the distant hills of Renfrewshire; the exquisite harmonies of the landscape were too much for even his eye, so familiar with beauty. Another, scarcely less known, from a different point, thus affected with the contemplation of the same objects, one fine summer morning, the writer heard exclaiming, “O! this is too much, this is too much!” and then his feelings were relieved by bursting into tears. After a long silence, absorbed in gazing from Tamnahara on the rugged forms of the mountains, rising abruptly from the waters of Loch Long and Lochgoil; “Never”—did a certain graphic author thus exclaim, creating terms for what he so admired, “Never did I see such specimens of the statuary of nature.” An English artist accompanied the minister one day to a cottager, who was labouring under very acute disease. He betrayed no peculiar emotion as he heard the groans of the poor man, so expressive of his intense endurance. No sooner, however, had he crossed the threshold, than he exclaimed;—“O nature! O man!” waving his hand towards the glories he looked upon. The contrast was indeed irresistible. How much of the primeval order and beauty seemed to adorn what surrounded the cottage—how much of the misery of man’s primeval folly dwelt within it!

Meteorology, &c.—There has been no register kept with sufficient accuracy to afford any precise test of the comparative temperature and pressure of our atmosphere. It may be stated, however, that the air is much milder here than at most other places in the same neighbourhood, and on the same line across the coun-

try. This is known to be the fact, and is indicated by various natural appearances, such as the continuance of the foliage, and the length of time during which exotics of considerable delicacy may be exposed to the open air without injury. This mildness of climate is more observable towards the end of autumn and during the winter than in the season of spring; and while the frosts of winter are less severe than in the interior of the country, the heats of summer are by no means so violent; which may be accounted for by the peninsular situation of the parish, and its being surrounded and sheltered by higher grounds, which, though separated from it by the intervening waters, are not more than a mile or two distant. The prevalent winds are from the south and south-west; and to these the Loch Long side of the parish is particularly exposed, while the Gareloch side is enjoying shelter the most complete. The average rain is certainly not greater, but it is without doubt more frequent, than in the neighbouring districts of Renfrewshire and Argyleshire. The chief reason of this is to be found in the conflicting attractions of the higher grounds on opposite sides of the Frith. A large mass of dense vapour may frequently be seen driving up the estuary of the Clyde, as if ready to deluge the peninsula in its progress. On reaching the narrow part of the channel, between the *Cloch* and Dunoon, it appears to pause for a while, as if considering in what direction to proceed: but whether it eventually verge toward the mountains of Cowal on the left, or toward the masses of Renfrew on the right, a portion of its watery burden descends on our intermediate shores,—and thus, whichever attraction prevail, we have invariably what is called the *tail of the shower*. This phenomenon is very striking, and may be very easily seen at certain seasons of the year; and during the struggle of the opposing forces for the mastery, the scenery of the dark and stormy heavens oftentimes presents an aspect of bold and rugged sublimity. *

* Changes of weather are preceded by such prognostics as are common in other districts,—such, for example, as the low flight of the crow in the growing humidity of the air,—the landward flight and flocking together of the gulls before a gale. One or two may be specified as rather peculiar.

In the calmest night the tide-stream at the ferry, although, as it passes, silent like the falling dew, will sometimes, before atmospheric changes, resound like a cataract. Let the sky be starry and cloudless, and otherwise studded all over with promises of a beautiful morning, the sun to a certainty will have much ado to escape from the clouds that shall crowd together to blindfold him.

Between two peaks on the Arrochar range, to the east of the “Duke’s Bowling-green-Hill,” should there appear a hazy ill-defined cloud in the afternoon, even although not a cloud should be elsewhere above the horizon, many a dingy mass of vapour will it have to bear by the morning.

The parish is, upon the whole, very healthy, as is indicated by the longevity of a much greater proportion of the people than is observable in ordinary cases, and by the great number of large families that reach maturity without the occurrence of a single death. The air is indeed moist, but it is, at the same time, particularly pure, to which the tide-streams, running in all directions round nine-tenths of its boundary, must in no small degree contribute. It is vitiated by no miasma: the beaches are generally gravelly and bold; and though a considerable part of the surface of the parish consists of marshy grounds, these lie along the summit of the ridge, and none of their exhalations at any season descend to the cultivated and inhabited districts. It is very seldom that any thing like foggy weather prevails; and the *haars* of the east coast are entirely unknown. It ought to be mentioned, however, that one part is certainly less healthy than the rest: that toward the south, which is much crowded by plantations, and where, during the last twenty years, the proportion of sickness and death has been much greater than in the Loch Long district, and on the upper shores of the Gareloch.

The prevalent diseases are rheumatic and pulmonary affections, which may be accounted for by the humidity of the climate, the nature and situation of the dwellings. Fevers do not frequently occur, and when they do, are traceable in almost all cases to infection from without the *isle*, as it is called, and are conveyed sometimes under circumstances that reflect but little credit on the principles and feelings of the wealthier classes of our city.

The transmission of sound across the Ferry is remarkably varied by the degree of humidity in the air; but no state of the atmosphere for the last twenty years has enabled the writer to detect the celebrated echo of the district. It is, however, gravely stated as a fact in acoustic treatises, on the authority of Dr Bird, "that, somewhere in the 'isle,' when a person at a proper distance played eight or ten notes on a trumpet, they were correctly repeated, but a third lower; after a short silence another repetition was heard in a yet lower tone; and after another short interval they were repeated a third time lower still."

That proper distance nobody has been able to discover, at least within the last twenty years. It is possible the reverberation may have been greatly modified by the growth of the plantations; but it is not likely that these varying keys should have been altogether lost. It is a curious circumstance, that, many years ago, when hailing a steam-boat at anchor in the contiguous bay from the point of Craigenroan, the words were repeated distinctly; and finding, on trial, that we had caught an echo of nine syllables, the writer and his friend at first supposed it was the long lost echo restored to the vicinage. There was no such repetition, no pause, nor change of key; but from that day to this the echo none can rouse from her slumber. A most evanescent creature she must have been, in all probability depending for her existence on the position of the steamer at the time.—annihilated by the first dash of her paddle.

So much for the Roseneath echo. Philosophers, puzzling themselves to explain the mystery of her being, may remind one of Charles the Second, with his fish and tub of water, among the fathers of the Royal Society.

population. The evil alluded to, and from which the parish occasionally suffers, is of the following kind : There are a great number of young women from this parish employed as domestic servants in the contiguous towns, more especially in Glasgow. As may be expected, not a few of these are from time to time seized with fevers and other infectious disorders : and though they are well known to be both faithful and active domestics, yet, no sooner are they unfit for their labour, than they are often hurried away from the families in whose services they have caught the infection, without any attendant, sometimes without any arrangement for their safety or comfort having ever been attempted. In this diseased and distressed condition they are left to find their way home as they best can : though symptoms of their malady are thus highly aggravated by undue exertion and exposure ; and with a diminished likelihood of recovery to themselves, they are made the vehicles of conveying disease, in its most virulent forms, to the small, and damp, and often crowded cottages of their native parishes.

Within the last twenty years, there have been several fatal cases both of palsy, scrofula, and cancer ; and during the late visitation of Asiatic cholera, there were two cases of the disease, both of which terminated fatally.

Many remarkable forms of disease have appeared among us ; and not a few very peculiar cases of insanity. In regard to these no minute details can be given here ; but in closing this section, it may be stated, that two very singular recoveries from disease have occurred within the last fifteen years. The one was the case of an epileptic youth, whose mind and body were fast decaying under his severe malady. It so happened that his parents had on one occasion left within his reach more than a pint of ardent spirits, for which, unhappily, he had contracted a liking. On their return home they found the bottle empty, and their epileptic son stretched senseless on the floor. He slept continuously for upwards of forty hours, and awoke in comparative health both of body and mind. He lived for several years, and during all that period he had no return of his malady, and no desire for violent stimulants. The other was the case of a poor woman, the mother of a large family, who, for a considerable period, had been in a state of violent and seemingly confirmed derangement. Her husband was so arrested and exercised with her distressing situation, that at length his mind became unhinged also ; and one night, in a fit of impetu-

ous distraction, he rushed from his cottage, and drowned himself in the Gareloch. So awful and sudden an event was not unblest to the poor widow : the result was her entire and almost immediate restoration to soundness of mind.

Hydrography.—As might be expected from the nature of the parish, there are many small rivulets, or brooks, descending from the higher grounds. In rainy weather, these give an aspect of great liveliness to the scenery on both shores, increasing at times from brawling brooklets to impetuous torrents, and showing in the lower parts of their course many cascades of various and picturesque beauty. During the piercing frosts of our severer winters, there may thus be seen an endless variety of columnar congelations, glancing through the leafless brushwood of the bolder rocky banks ; while during the intense heats of summer, the streams which should replace them entirely disappear.

Of late years, there have been several waterspouts of unusual magnitude on the Gareloch side ; and, as these occurred at one locality, there must in all probability be something in the nature and form of the ground to occasion the coincidences.

There is one small lake in the parish contiguous to Tamnahara. It is not deep, but its waters are very pure, and it affords what may be considered rather good perch fishing. A small stream from this lonely and elevated lake falls into Loch Long near the north-west extremity of the parish ; but this, like our other streams, is very inconsiderable during the warm summer months.

There are but few perennial springs : one of these, near the old mansion-house at Clachan, is nearly of the same temperature at all seasons ; and in drougthy summers has been occasionally resorted to from considerable distances. The other, in the Clachan glen, called the *Minister's well*, is slightly chalybeate, and, like the former, scarcely varies in its temperature.

Although there are no fresh water rivers, there is a considerable stream in the tides of the Gareloch at Roseneath Ferry. These are very remarkable, as well for their rapidity as their varying direction, occasioned by the narrowing of the loch at the Row Point, and the various headlands or horns of the contiguous bays. The waters both in Loch Long and Loch Gare are generally clear,—their depth varies from 10 to 30 fathoms, and the saltness of neither is materially diminished by the waters of the Clyde. In Loch Long, the current runs about two miles, and in the Gareloch three or four miles, an hour.

The Gareloch affords excellent anchorage for vessels of all sizes ; the holding-ground is good, and the shelter is complete from all the more prevalent winds. This is especially true of the beautiful small bay of Campsaile, perhaps the best sheltered anchorage on the west coast of Scotland. Of late years, it has on this account been selected by many gentlemen of the Royal Yacht Club, and during the winter season is studded with their cutters, which ride there in perfect safety during the most violent gales. It appears that, at a very early period, it was used by the Kings of Scotland for a similar purpose, having been a frequent station of the royal navies : and within the memory of the present generation a 74 gun-ship lay for a considerable time at anchor, between the Row Ferry and the Castle-point : Indeed, the whole navy of Britain might ride securely on the bosom of the Gareloch, and enjoy all the comforts of an inland harbour.

Geology and Mineralogy.—There is scarcely any thing worthy of notice in the geological structure of the parish. It may be mentioned, however, that nearly the whole strata of this peninsula belong to the primitive class of rocks. The prevailing formation is clay-slate, which, at times, passes into chlorite slate, and, more rarely, into mica slate. One example of the chlorite slate has been furnished by quarries that have been opened on the face of the hill rising from the Gareloch, above the Row Ferry. The clay slate strata are inclined at an angle of about 60°. The direction appears to be pretty uniform, from north-west to south-east.

On the shore of Loch Long, near the site of the old fort at Knockderry, a large mass of greenstone has been forced up between the strata, and appears as a dike of from twenty to thirty feet thick, lying interposed between the strata, and not cutting them across. In the immediate vicinity of this dike, the rock approaches in its mineralogical character to chlorite slate ; but at no great distance, the clay-slate appears. Another much smaller greenstone dike, about three feet thick, and nearly half a mile farther south, on the same shore, is found similarly related to the adjoining strata. The south-eastern extremity of the parish is occupied by a rock of the secondary class, conglomerate, or coarse sandstone, which occurs in beds of considerable thickness. This rock is recognized as a portion of the great sandstone formation which extends along the opposite shores of Renfrew and Ayrshire, and embraces the Cumbræ Islands and a large portion of the southern half of Bute. The sandstone must, no doubt, be regarded as one

of the lowest members of the carboniferous series, which pervades the great valley of the Scottish Lowlands, in which no organic remains have hitherto been found. The line of formation between the sandstone and primitive rock of the parish runs along the vale or dingle which stretches from Campsaile on the eastern shore to Portkill on the south-west. Although seldom observable on the surface, it is easily known by the superior fertility of the fields lying on the sandstone. In the slate formation on the Loch Long shore, as well as in the quartz, iron pyrites is found in considerable abundance. In the slate, it is always crystallized, and in the quartz it appears in irregular masses of larger size. The colour of the slate varies very much, and obviously in proportion to the quantity of oxide of iron which pervades it. Boulders of granite are frequent on the western shore, some of them of considerable size.

Zoology.—There is nothing remarkable in the zoology of the parish. No animals of any rarity seem to be indigenous. The zoological ornament of the parish is its herd of roe-bucks. These elegant creatures, although not so numerous as formerly, may still be seen in little groups, chiefly in their favourite haunts throughout the woods, or bounding across the open fields. They seem rather migratory in their habits, which, independent of other causes, accounts for their diminished numbers. For it is a remarkable fact, that, although the plantations here afford the best possible retirements, and seldom any thing can occur to startle or annoy them, they have been seen occasionally swimming across Loch Long to the Cowal mountains, and throughout the Lennox different colonies are springing up, whose common ancestors browsed in our quiet groves on this side the Gareloch.

It is said that at one time the soil of the peninsula was so sovereign a repellent of rats, that not one of the race would come near it. The Greenock skippers, to secure their vessels from such a nuisance, shipped ballast from the Roseneath shore for any of their longer voyages; and it seems there is no doubt a sagacious West India planter did veritably export some casks of our earth to Jamaica, in hopes of killing the rats that were gnawing his sugar canes. The alleged peculiar sanctity of the spot, may have originated such an impression of the virtue of the soil of the beautiful isle. The fact of their being no rats in the parish, would aid the delusion. Now, indeed, different races of these pestilent vermin, under cover of our agricultural improvement or from vessels with less sacred ballast touching our shores, have effected a habitat here as in other districts. Not

more than forty years ago, however, a rat seemed so rare and strange a creature, that the children were let loose from the parish school for the express purpose of seeing the skeleton of one which had been found, to the surprise of the whole neighbourhood, at the demolition of the old ferry house.

In the high grounds, grouse are still found in considerable numbers, although gradually giving way to the more muscular black game. The partridge coveys have multiplied with the cultivation of the fields below. Hares are not increasing in number. In their season, snipe and woodcock are abundant in certain localities: but pheasants, although all the ordinary arts have been employed to naturalize them in covers apparently most agreeable to their habits, —the soil has hitherto put forth no virtue sufficient to attract.

The surrounding waters periodically abound with herrings; and salmon* are caught at different stations in considerable numbers; but there is nothing peculiar in the mode of fishing either. In regard to the herrings, it may be stated that they appear in the Gareloch sooner than in any other of the western lochs, and are fully equal in quality to those of Loch Fine. Of late years, they have not been so numerous as formerly, owing, as many persons in lack of a more exact philosophy imagine, to the frequent passing and repassing of steam-vessels in all directions, and more especially where the waters of the Gareloch and Lochlong diverge from the estuary of the Clyde.

The symptoms of the approach of the shoal for the season are familiar to the natives, and always excite interest around our shores. Nor does the flight of gulls and other aquatics, or the harlequin movements of the porpoises in the end of May or beginning of June, contribute more to the picturesque aspect of our secluded waters, than they excite agreeable sensations, as the well known heralds of God's bounty, on its way with each coming tide from the prolific depths of the more distant ocean.

There is, besides, a great variety of fishes, more or less abundant, fit for the table, found in our contiguous waters, viz. sea-trout, haddock, common or rock-cod, ling, (20 lbs.) whiting, skate, mackerel, flounders of all varieties, sethe, lithe; but, from whatever cause, they are all less numerous than about ten or twenty years ago. In addition to these others, are occasionally found, such as the hali-

* In the twelfth century, Amelec, the Earl of Lennox, granted to the monks of Paisley a right to all the salmon fishing in the Gare'och, reserving to himself and heirs every fourth salmon.

but, (60 lbs.) said to be a peculiar favourite with the Jews; mullet, sperlins, John Dorys, one of the most elegant of the finny tribe, the gurnard or crooner, so named, from its emitting a sound at the depth of several feet, similar to the grunting of a pig, the braise, of singular beauty of colour, (2 lbs.) grim iris, the bones of which, when boiled, become quite green, and several years ago, a tunny, of about eight feet in length, was entangled in the salmon nets; or rather was entrapped out of his depth at the head of the Gareloch.

The shell fish of any value are few. Occasionally a crab or lobster is found on the Loch Long shore. Mussels are numerous, but seldom come to maturity; there is a bed or two of oysters, also of excellent quality, but scantily inhabited.

The following is a list of Roseneath shells, or shells on the Gareloch shore, two or three of which may be interesting to conchologists.

<i>Patella vulgaris</i>	<i>Modiola vulgaris</i>	<i>Venus gallina</i>
<i>Turbo littoreus</i>	<i>Mytilus edulis</i>	<i>Venerupis pullastra</i>
<i>Turbo rudis</i>	<i>Cardium edule</i>	<i>Venerupis Virginea</i>
<i>Nerita littoralis</i>	<i>Cardium echinatum</i>	<i>Pholas dactylus</i>
<i>Tornatella tornatilis</i>	<i>Tellina tenuis</i>	<i>Hiatella rugosa</i>
<i>Buccinum undatum</i>	<i>Psammobia solidula</i>	<i>Mya arenaria</i>
<i>Rostellaria pes-pelecani</i>	<i>Astarte Sootica</i>	<i>Mya truncata.</i>
<i>Pecten opercularis</i>	<i>Astarte Ganensis</i>	
<i>Pecten varius</i>	<i>Cyprina Islandica</i>	

Botany.—The soil seems favourable for the growth of trees of all descriptions; and evergreens, shy, or rather difficult of culture, shoot up in the more sheltered spots with wonderful celerity and luxuriance. There are in the woods of Campsail, as well as in the policies contiguous to the Castle, and around the church, trees of great magnitude and beauty. But the botanic glory of the parish, are the two *silver firs* near the site of the old mansion of the Campbells of Carrick. They are supposed to have been among the first specimens, and coeval with the introduction of that species of pine into this country. Their circumference, five feet from the ground, is about 19 feet, and their lofty stems support a profusion of mighty boughs, by the peculiar form and grouping of which, such an expression of power and majesty is conveyed, as to excite, even in the most insensible, sublime emotions. They singularly combine, by their relative position, to effect this. A distinguished artist greatly erred, when preparing his work on forest trees; he sketched only one of these magnificent forms. Would a section of York Minster do justice to that noble pile in a collection of Gothic cathedrals?

The following is a list of the more humble plants in the parish, some of which will be found of considerable rarity.

Salicornia herbacea	Oxyria reniformis	Hypericum quadrangulum
Veronica scutellata	Triglochin maritimum	perforatum
anagallis	palustre	humifusum
moutana	Erica tetralix	pulchrum
Pinguicula vulgaris	cinerea	elodes
Lycopus Europæus	Vaccinium uliginosum	Leontodon palustre
Circeæ lutetiana	vitis idæa	Cichorium intybus
alpina	oxycoccus	Eupatorium cannabinum
Valeriana officinalis	Polygonum viviparum	Gnaphalium dioicum
Fedia oktoria	Pyrola media	sylvaticum
Scirpus sylvaticus	Chrysosplenium oppositifolium	Aster tripolium
Poa fluitans	alternifolium	Solidago virgaurea
Briza media	Saxifraga stellaris	Orchis mascula
Elymus arenarius	aizoides	latifolia
Triticum junceum	granulata	maculata
Galium boreale	hypnoides	Gymnadenia conopsea
Asperula odorata	Sedum villosum	Habenaria viridis
Plantago maritima	Prunus spinosa	albida
Ilex aquifolium	padus	bifolia
Lithospermum maritimum	Rubus idæus	Listera ovata
Lycopsis arvensis	suberectus	cordata
Myosotis palustris	saxatilis	Zostera marina
Anagallis arvensis	Glaucium luteum	Myrica gale
tenella	Thalictrum majus	Juniperus communis
Lysimachia vulgaris	Trollius Europæus	Polypodium vulgare
nemorum	Thymus serpyllum	phlegopteris
Erythræa centaureum	Teucrium scorodonia	dryopteris
Samolus valerandi	Galeopsis tetrahit	Aspidium lobatum
Lonicera periclymenum	versicolor	oreopteris
Glaux maritima	Prunella vulgaris	filix-mas
Gentiana campestris	Scutellaria galericulata	dilatatum
Sanicula Europæa	Bartsia viscosa	filix femina
Cicuta virosa	Digitalis purpurea	Cistopteris fragilis
Sison verticillatum	Lepidium Smithii	Asplenium viride
Carum carui	Draba verna	ruta-muraria
Pimpinella saxifraga	Geranium sylvaticum	adiantum nigrum
Oenanthe fistulosa	Corydalis claviculata	trichomanes
crocata	Polygala vulgaris	Scolopendrium vulgare
Daucus carota	Ononis arvensis	Blechnum boreale
Salsola kali	Anthyllis vulneraria	Hymenophyllum Wilsoni
Viburnum opulus	Vicia sativa	Botrychium lunaria
Parnassia palustris	Lotus major	Lycopodium clavatum
Drosera rotundifolia	corniculatus	selago
Hyacinthus non-scriptus	Hypericum androsæmum	alpina
Narthecium ossifragum		selaginoides,

II.—CIVIL HISTORY.

As has been already observed, the peninsula formed a portion of the district de Nevyd, granted at a very early period to the Lennox family, and continuing in their possession till the close of the fifteenth century. In the year 1489, the Earl of Lennox seems to have been engaged in measures rather of a treasonable character, for which he had forfeited the royal favour. The records of the Scottish Parliament contain a declaration and ratification of his pardon; but the forfeiture from all his property was not withdrawn, for, in that same year, the lands of Roseneath were a royal

gift to Colin, the first Earl of Argyle. It does not appear that the whole of the Roseneath district, or of the lands de Nevyd was bestowed upon Argyle, for down to the beginning of the seventeenth century, the property of that family, even in the 'isle' was limited to its southern extremity. The new acquisition, however, was of importance in the history of that illustrious family, being its first territorial connection with the western Lowlands, which thus extended its influence beyond its original limits, and greatly facilitated, in later ages, its predominance for more than a century, amid the agitations and antipathies of a transition country, so to speak, consummating the demolition of one, and construction of another system of religious opinions. The first proprietor of Roseneath was a man eminent for his wisdom in conduct. His integrity of principle, and his talent for public affairs, were evinced by the offices he filled, having been Lord High Chancellor of Scotland, and plenipotentiary at the celebrated Northampton conference; by his fidelity to the last to his sovereign, amid the rebellious nobles; and by the confidence reposed in him, notwithstanding, by James IV. on his accession to the throne. The occasional presence or residence of the successive Earls of Argyle must have materially affected the civil and religious condition of this district, but especially when they abjured the Romanist superstitions. The fourth earl was the first nobleman of his country who embraced the Scripture faith of the Reformation; and as he cherished in his household the teachers of the truth, his dependents and tenantry would unquestionably share the blessedness which he enjoyed himself, and which, in his celebrated letter to the furious and bigoted Primate, he evinces so strong a desire to secure for them.

Subsequently, during the tyranny of the latter Stewarts, the Lowland Presbyterians often found shelter on this side the Gareloch, as the names and traditional histories of several families, residing here for many generations, indicate. It is curious, indeed, to observe how tradition sometimes extends the line of its vague remembrance. An old woman of the name of Chalmers preferred a claim some years ago for sessional relief, grounding it on the alleged fact, that her "mother's forbears had for fifteen, and her father's forbears for twenty-five generations been residents in the parish." The truth of her story was not difficult to expiscate, although tradition had so rapidly elongated her genealogical tree, for there is little doubt but that Chalmers of Gadgirth, a leader of the

Covenanters, was the chief of her ancestors, who had found their way across the Frith of Clyde during the troubles of the western Lowlands, to enjoy the protection of the family of Argyle.

Notwithstanding the accounts that are generally given that Bal-four of Burley, one of the assassins of Sharpe, passed over to Holland, and died in the service of the Prince of Orange, there are strong presumptions that he found an asylum in the same peninsula, and that, having assumed the name of Salter, his descendants continued here for several generations. They were always considered of more gentle kin than the tenantry around them; their family traditions, it is said, uniformly so identified their ancestor. The last of this race died about thirty years ago.

The effect of this immigration and settlement from the Lowlands was traceable in the earlier disuse of the Gaelic language in this than in the contiguous parish; of which this may be stated as conclusive evidence, that there were Gaelic services at communions in the neighbouring church of Row, although not half a mile across the Gareloch, for fifty years after they had been laid aside in Rose-neath.

Antiquities, &c.—There are no ruins or monuments to throw any light on the more remote history of the spot, with the exception of the debris of an old Danish or Norwegian fort at Knockderry, on the Loch Long shore. This must have been coeval at least with the battle of Largs, and is admirably situated for observation, commanding an extensive range of the frith and its shores in all directions. It is certain that the Danes sailed along the northern shore of the parish to Arrochar, and that, having conveyed their boats across the isthmus of Tarbet, they devastated the islands of Loch Lomond, and the contiguous district. Thus, in the absence of more authentic information, we may gather from witnessing the ruins of the antique stronghold, fitted to protect them, either as they advanced or retired, that these now peaceful shores were once the scene of violence and bloodshed. It may be noticed in passing, that though the term Loch Long, sufficiently characterizes the form of the waters that bound the parish in the west, yet it does not primarily refer to their appearance at all, but to the ancient expedition alluded to, and strictly means the lake of ships; and no doubt the classical reader may see in this, not a very distant or indistinct connexion with the *longæ naves* of the Romans.

There is a precipitous rock of conglomerate on the north of the castle called Wallace's leap, which is traditionally monumental

of similar occurrences at a less distant period in the south of the peninsula. On one occasion, as the story goes, Wallace, having been hotly pursued by his enemies, galloped in the direction of this cliff, and having no other way of escape, leaped his horse from its lofty brink. The poor steed was killed upon the spot, and its grave is still marked by a rude block described as its tombstone ; but Wallace himself made for the Gareloch, swam across, and so escaped his Saxon pursuers. Such is the tale of tradition ; but Blind Harry describes a visit of his hero to the " Isle" under more auspicious circumstances : for instead of hurrying hence as a fugitive in imminent peril of his life, he took and set on fire and demolished the castle, and then crossed in triumph to Fasslane, a residence of the Earl of Lennox, whose patriotism never gave way in those days of aristocratic apostacy. To use the language of the old minstrel,

Yan to Faslan ye worthe Scot yan pass,
Quhar Erle Malcolm was bydand at defence,
Richt glad was he of Wallace gude presence.

In what condition the castle remained for centuries, or whether it was ever rebuilt or possessed while within the Lordship of Lennox, it is impossible now to say. About 1630, it seems to have been fitted up by the Marquis of Argyle, as a subsidiary residence to the old family mansion of Inverara. A small castellated building situated on the point south of Campsail bay, the late Duke enlarged, and surrounded it with more commodious suites of apartments. About thirty years ago, Rosneath Castle was once more burnt to the ground, which gave occasion to his Grace, then a very aged man, thus piously to express his gratitude to Divine Providence, as he viewed the conflagration from Ardencaple on the opposite shore, " I thank my God I have another house to go to."

Of religious houses there are no ruins, although the names of several places indicate their former existence, and tradition confirms the impression conveyed by the name. Of these, Kilcraigin, the chapel of the Rock, and Port Kill, the harbour of the chapel, may be given as examples. Some traditions attaching to these spots have already been alluded to; and it may further be stated, that the bodies of the dead used to be brought thither from the Hebrides and other districts of Argyleshire, and even from Ireland, as if to enjoy a more sacred and happier sepulture in ground, from a very early period imagined to be of peculiar sanctity. In one of the fields near Port Kill, several *stone* coffins were found about thirty years ago. They were of very rude construction ; and the

relics of the dead they contained had become as the dust that enclosed them.

On the farm of Marson, the last ruins of what seemed to have been some ancient chapel, were employed in completing the enclosures of that district, regarding which some interesting traditions were in circulation among the people; very much resembling those of the crusade adventures. In the contiguous farm of Membig, there is a deeply affecting spot by a beautifully sequestered little bay overhung with lofty trees, which cannot be omitted, when noting the few antiquities, if they can be so called, which the "isle" contains. There is indeed nothing seen there monumental of the doings or sufferings of man; only the green sward meets the eye, and no relics of any former age; but who can look on it without emotion? it is the traditionary burial place of unchristened infants, during the iron tyranny of the papal delusion. A sweetly solemn seclusion, as if a dark and severe superstition, half relenting its own uncharitableness, and yielding to a certain compunctious tenderness of feeling, had sought for the loveliest spot in this beautiful "isle," for the repose of those babes whose dust it had harshly doomed to exile from the sepulchre of their fathers.

Modern Buildings.—After the destruction of the old castle, the late Duke of Argyle founded another mansion in 1803, not on the old site, but retiring from the shore more towards the bosom of the Bay of Campsail. It is from a splendid design by J. Bononi of London, in Romanesque, or rather modern Italian style of architecture. The general effect is exceedingly graceful and elegant. It has two principal fronts, to the north and to the south. The former is adorned with a magnificent portico, approximating to the Roman Ionic, and projecting so far as to admit of a carriage-way being within it. A circular tower rises from the centre of the building, surrounded by a balustrade at the summit, from which there is one of the most splendid panoramas that can possibly be conceived.

The situation, although in some respects inferior to that of the old castle, and not perhaps the best that might have been otherwise selected on the grounds, is happy in many respects; and the castle itself, with its magnificent environs of woods, and waters, and mountains, contains, in rich variety and profusion such elements of beauty and sublimity, as those who are strangers to the shores of the Gareloch may find it exceeding difficult to see any where else.

The Easter House, formerly the seat of the ancestors of the present Ducal family, of the house of Argyle, is remarkable for its position, from the magnificence of its back-ground, and the yew avenue, with its parallel of lofty limes extending to the church—a grouping which excites very much the admiration of strangers.

Besides, there have been, within the last twenty years, erected throughout the parish, chiefly on the Gareloch, a considerable number of villas and cottages, which, if not distinguished for architectural elegance, generally occupy situations which command most interesting prospects of the surrounding scenery.

Maps, &c.—There have been very minute maps, plans, and surveys recently made for the respective land-owners; but there are no letters or documents existing which particularly illustrate the history and antiquity of the parish. The sessional records do not extend back above seventy years, and have not been regularly or fully kept. A pretty correct list of the births, marriages, and deaths has been kept for the last twenty years.

There are regular half-yearly meetings of the heritors and kirk-session for the distribution of poor's-money; and notices of these have been regularly engrossed, in a separate volume, for the last half century.

Heritors.—There are only four heritors in the parish: The Duke of Argyle; his Grace's brother, Lord John Campbell; Colin Campbell, Esq. of Pealton; and Dugald Cumming, Esq. of Baremman. The last only is resident in the parish.

Eminent Persons, &c.—Respecting various members of the Argyle family, whose names are honourably associated with their country's history, reference might be made to the public records, since none of the events in which they bore so conspicuous a part happened here, or are especially connected with this locality,—it being uncertain, besides, whether any of them were natives of this parish; yet, as it seems to have been a favourite residence with one of these illustrious men, the Marquis of Argyle, a notice of his character may be inserted from one of the historians of his own age.

“He was a man of singular piety, prudence, authority, and eloquence; and though he had been much envied and calumniated, yet his death did abundantly vindicate him. He left his desolate family upon the Lord's providence and the King's uncertain favour. As he was a very great support to the work of reformation, so it was buried with him in one grave for many a year.”

His widow continued to reside in the castle which he had rebuilt, nor can the insertion be resisted of this beautiful eulogium on one who so long hallowed these sequestered shores by her presence. "His noble lady, Lady Margaret Douglas, a lady of singular piety and virtue, bore the sad shock with other both personal and domestic afflictions, with great patience and incredible fortitude, giving herself always to prayer and fasting, and ministering to the necessity of the saints." In the old Castle* one of their daughters was married to the Earl of Caithness, whom Middleton, the brutal minister for Scotland, (one of those dissolute bacchanals to whom Charles II. confided the government of his kingdom,) "threatened to kick with his foot when sitting on her knees before him, begging her dead father Argyle's head to be buried."

The fate of the next Argyle, rather a rash patriot, the victim of royal resentment and jealousy, is well known; although, perhaps, the particulars of his escape from his first imprisonment are familiar only to the readers of the more minute and circumstantial biographies. They were of a romantic cast, and reflect exceeding credit upon the self-command and dexterity of his step-daughter, the Lady Sophia Lindsay, to whom, after his arrival in the Low Countries, he addressed a poem well expressed, and throughout containing a pleasing vein of religious sentiment. The following lines might be applied to the present phase of our own community, and are quoted to show how curiously in certain cycles men are the agents or the victims of the same ecclesiastical and political antagonisms:

The world is here as I have seen,
All do cry down what is—up what hath been;
Debate for government in church and state,
Are still the devil's delight.

* The castle was the scene of superstitious omens of his untimely end. According to Baillie, "all the dogs on the day Charles II. landed in England, did take a strange howling and staring up to my lady's bedchamber for some time together. The Marquis's sister, Lady Kenmure, 'from a little skill of physiognomy which Mr Alexander Colville, Justice Deput, an old servant of the house, had taught her, had said some years ago that her brother would die in blood.'" "When the Lord Marquis of Argyle went from Inverara to Roseneath in his birline, when going up to see the King after his return from exile, Mr Gordon, minister, with some others, accompanied him to the boat, and after said lord was upon his voyage they, returning home, met a dumb man, who falls a whining and mourning, and having a staff in his hand, laid down the staff on the ground, and lays his body on the ground, laying his neck upon the staff, and smiting the upper part of his neck with the edge of his hand, he arose from the ground and pointed at my Lord Argyle in the birline, which accordingly fell out, for he was beheaded."

Dr Anderson, the well known founder of the Andersonian Institution of Glasgow, was the son of a former minister of the parish, and was born in the manse. He was a man of eminent talent and various attainments, and will long be remembered as having first realized the idea of bringing within reach of the labouring classes the philosophy and science of the chartered universities.

Matthew Stewart, one of the most distinguished of the Scottish mathematical scholars, perhaps better known as the father of the celebrated Dugald Stewart, was for some years minister of Roseneath. There are still current among the older people, some rather amusing traditions respecting his singular absence of mind, and the avenue of yew trees, in itself so remarkable, leading from the church to the old family seat of the Campbells of Marmore, has acquired rather a classical interest, from having been the frequent and favourite scene of his peripatetic meditations.*

III.—POPULATION.

Since the date of the former Statistical Account, the population has been gradually increasing. Then it was stated to be only 394, now it consists of 709 souls. The agricultural improvements of the intermediate period easily account for this: having rendered necessary the employment of additional labourers, and increased the productiveness of the soil. The Government census of 1831 shows a still higher number, but that was a partial augmentation arising from a temporary cause, the working of two slate quarries which had been opened on two different properties, but which have since been closed.

The number of families is 156, and the average of births, marriages, and deaths, during the last seven years, has been 17, 4, and $9\frac{1}{2}$ respectively.

It may be remarked, that, while the average of each family is not more than $4\frac{7}{8}$, the average of children born in each productive marriage is so high as $5\frac{5}{11}$; nor is it unworthy of note, that from a calculation regarded as accurate that of all the children

* It seems not just to pass over, without some particular notice, the extraordinary instance of Isabella Campbell, who indeed, although in humble life, might have been named among the eminent persons connected with the parish. Successive editions of her memoirs, consisting of many thousand copies, have been printed; and it may be truly said, that wherever the English language is spoken, the knowledge of her godly example has found its way. The letters, although she had no other advantage than what the cottage school afforded, are written with great elegance and beauty, admirably showing how the habitual contemplation of the glorious revelation of Divine truth may supersede the ordinary means of mental cultivation and refinement.

born to the heads of families now in the parish, and resident for the last forty years, $\frac{85}{100}$ are still alive.

To whatever cause so small a mortality may be attributed, the salubrity of the air, the general healthiness and sober habits of the parents, or the skill and care with which they nurture their offspring, it is a fact not a little remarkable in the history of human life. Large families, indeed, frequently reach mature age without a single breach, and sometimes with scarcely the experience of any acute disease; and instances of longevity, it is believed, are much more numerous than in most parishes of similar extent.

Of the whole population 1-9th are above sixty years of age, 1-18th above seventy. Many are considerably beyond eighty. Several have reached their ninetieth year, and although only one female is older (in her ninety-third,) a few years ago there were several living nearly a century old, and one female died in her hundred and third, who a twelvemonth before had displayed such strength of constitution, and such tenacity of life, as to have recovered entirely from a severe dysentery of several weeks duration.

Regarding one venerable lady, whose age extended to within a little of a century, it is worthy of record, that, as each Sabbath returned, she regularly committed to memory, as in the days of her youth, a portion of scripture, with some psalm or hymn, or spiritual song, to supply her wakeful nights, or when she was alone, as she used to say, with materials of reflection and devotion.

The great bulk of the population now are engaged in agricultural pursuits, and the tradesmen are of such crafts as are needful to supply the wants of a rural district. There is neither a baker nor butcher in the parish, but the contiguous towns compensate that deficiency.

Character of the People, &c.—In their general deportment, they are well conducted, sensible, and judicious in the management of their affairs, not distinguished, perhaps, for enterprise or energy, but steady and industrious, exceedingly neighbourly and kind, and although with some exceptions, compared with other parishes, exemplary in their attendance on religious ordinances.

Very much as one family the parishioners dwell together, and in the interchange of kind offices there but seldom occurs any interruption. Insurmountable difficulties are in the way of ascertaining intimately the amount of religious principle actuating any community. It has been remarked they do generally attend public wor-

ship ; besides, it merits notice, that many have family worship daily, and are readers of the Scriptures, while occasionally there have been remarkable examples among them of the transforming power of the truth of God. The periodical influx of strangers for the summer months, although in some temporal respects an advantage, is not to be regarded without serious apprehensions in its moral and religious bearings. Occasionally very estimable persons are met with among this fluctuating population, whose temporary residence is even a blessing to our secluded community ; but there has always hitherto been a leaven of ungodly scorners among our summer visitants. Incapable of laying aside habits intrinsically criminal, they aggravate their guilt by transferring them where they are more obtrusively offensive. As if long accustomed to think that "man made the town," they seem to conclude that he "made the country" also ; and it ought to be known through such a medium as a statistical survey of the parish, that there are many persons of respectable stations in life from the commercial districts, so lost to all sense of decorum, as systematically to disturb the devotions of a peaceful people, by retiring during the service, should continuance to its close unexpectedly interfere with the projected relaxations and amusements of the day. Some bolder, or more hardened in their desecration, attempt no such compromise with their conscience, as to attend any portion of the service ; but while others are reverently occupied, may occasionally be seen prowling around the walls of the church, or along its contiguous avenues, contemptuous of the worship of the God whose works they pretend to admire.

Only one illegitimate birth occurred in the parish in the course of the last three years.

IV.—INDUSTRY.

Agriculture and Rural Economy.—The parish consists of 6140 acres, of which about 3000 are uncultivated moorland, although of these it is calculated 500 are capable of profitable culture, 520 are under valuable wood plantations of various ages, and 720 of old and natural copse, which leave about 1900 acres of ground cultivated, or occasionally in tillage.

In the grounds of the Castle, and the environs of the church, and the site of the ancient House of Campsail, are chiefly found the trees of any considerable age and magnitude, and these are of all varieties ; ash, elm, beech, plane, lime, oak, yew, horse chest-

nut, holm oak, cedar, with various species of fir, &c. Some of these are magnificent trees; the silver firs of Campsail have already been particularly noted.

Those planted of late years consist of all varieties of the pine tribe, with oak, ash, and birch, which are indigenous to the soil. Within the last thirty years, the appearance chiefly of the southern district of the parish has been greatly improved by numerous plantations, harmonizing exceedingly well with the more ancient trees of the Castle grounds, and the natural woods skirting the shore.

The Gallowhill, for example, which lies immediately opposite Greenock, a few years ago, was a mere heath and furze cover for game, but now bears to its summit a luxuriant forest of this description, and which, resting on a base of beautifully pendant fields, highly cultivated, forms one of the most interesting and remarkable objects to be found in any locality. The woods are kept in good order, all fenced and drained, and according to the most approved rules periodically thinned.

Rent of Land.—The average value of land under the plough may be rated at L. 1, 5s. per acre; the charge for grazing a cow, L. 2, 10s.; and, for a full-grown sheep, 5s. The rental of the parish may be estimated rather below L. 8500.

Rate of Wages.—Agricultural labour averages 1s. 10d.; artisans, 2s. 6d. per day. Farm servants are hired at L. 7 and L. 8 for the half year, with bed, board, and washing. On three or four farms only are there married ploughmen, who receive, in lieu of fixed money wages, allowance in produce with free house, garden, and cow's grass, amounting in the aggregate to L. 32.

Implements used in husbandry cost thus,—an iron plough, L. 4, 10s.; pair of wooden harrows, L. 1, 15s.; wheelbarrow, L. 1, 5s.; one horse box-cart, L. 8, 10s. Sawing of timber,—yellow pine, 3s. 6d.; hardwood, 4s. per 100 feet.

Breed of Cattle.—The common breed is Ayrshire, and a considerable portion of the parks is under grazing for black and West Highland cattle. A few sheep are kept; and on one farm a small herd of goats.—An association has been lately formed for improvement in this branch of rural economy, and it may be stated as a token of its probable success, that, at the last annual meeting of the Highland Society held in Glasgow, two oxen fed on the farm of Mr Lorn Campbell, his Grace's chamberlain, under whose

auspices the association has been formed, greatly distanced all other competitors, and were, indeed, supposed to have been the very finest specimens ever reared of that peculiar breed.

Husbandry.—The general character of the husbandry is improving chiefly by inclosing and draining on the modern system, which might, however, be carried to a still greater extent. Nearly the whole of the cultivated ground is inclosed by hedge and stone-dikes, and on some farms there have been reclaimed lands to complete the uniform aspect of the fields, which indicate a very determined spirit of agricultural improvement.

To this, throughout the parish generally, there is no peculiar obstacle, but the want of better farm buildings, which, with very few exceptions, are inconvenient,—not in good repair and of limited extent; and sometimes a lack of sufficient capital. For the produce there is a steady and constant market, with easy access and water carriage for any amount of stimulating and enriching manure; while the sympathy and encouragement of a kind and intelligent proprietary have the natural effect of giving no small energy to the farmer's proceedings. The ordinary duration of a lease is nineteen years, on terms that seem favourable to the occupier, and such as are fitted to secure the full benefit of his compact with the landlord. The enclosures are very complete, and are in good repair, perhaps more thoroughly suited to the purposes of the farmer, than those of any other parish in the district.

Quarries and Mines.—Of the latter little need be said. The parish contains both limestone and slate, but neither has hitherto been productive. The lime can at all times be procured from the north of Ireland in abundance, and at less expense than the farmers could prepare it on their own fields.

A few years ago, two slate quarries were opened by the Duke of Argyle and Mr Cumming of Baremman, on their respective properties. Both were wrought for some time but unproductively, and were abandoned by their respective proprietors. The slate, however, is of excellent quality, and Mr Cumming lately re-opened his quarry with greater prospects of success.

Fisheries.—Both salmon and herring fishing in their season are carried on to a considerable extent on both shores of the parish.

Produce.—The average yearly value of all kinds of produce, calculated pretty exactly may be thus rated:

Value of all kinds of grain, ...	L. 2000	0	0
Of potatoes and turnips, ...	1500	0	0
Of hay cultivated, ...	400	0	0
(Meadow trifling)			
Of flax for flannel, are	20	0	0
Of land in pasture, rating it at L. 2, 10s. for each cow or full-grown ox, and for each sheep, 5s.	1200	0	0
Annual thinning from plantation grounds, ...	600	0	0
Of salmon fishing, ...	100	0	0
	L. 5820	0	0

V.—PAROCHIAL ECONOMY.

Occasionally sales are effected in Glasgow and elsewhere ; seed oats are sometimes exported to Ireland, and potatoes to the colonies ; but Greenock is the chief market for all descriptions of farm produce from the parish, to which there is a ready access by the two ferries of Row and Kilcraigin. By the former, (on the Gareloch shore) and about six miles from Greenock quay, the farmer can convey his articles to market in steamers every day ; by the latter, which is on the Loch Long shore, where the estuary is about three miles wide, in the regular packet-boat on Mondays and Fridays.

Villages.—There are several little groups of cottages, scarcely one of which can be termed a village, unless, indeed, the Clachan lay claim to that distinction among those of the hill of Campsail, Kilcraigin, Barber, or the mill of Reheane. In none of these, are there above ten or twelve families, and in the Clachan itself there are not sixty souls.

Each family in these groups occupies a separate or *self-contained* cottage, so that although contiguous or rather crowded together, each thus enjoys a certain domestic privacy. Very few of the cottages are without a *ben*, the comfort of which is so felt by the poorest of the people. It is of no mean importance in their domestic economy, for very obvious purposes ; but it may be observed that it is prized in proportion to the diffusion of the power and habit of reflection, especially when the mind becomes religiously impressed. Such a family accommodation in their humble dwellings facilitates the attainment of that quiet and seclusion so indispensable for those exercises with which a stranger cannot intermeddle.

Means of Communication.—There are no turnpike roads ; but about twenty-four miles of carriage roads, kept in excellent repair, traverse the parish in various directions, with the exception of not more than three miles, the isthmus extending from Coalport to Fernivarry, they entirely surround the peninsula, and bisect it first across the dingle of Campsail Bay, then at Mamore, thus connecting the Loch Long and Gareloch sides of the parish, while another line,

longitudinally stretching from Portkill to Pattown, along the farmsteadings of the west, very much facilitates all intra-parochial communication. An additional line bisecting the ridge between Kilcraigin and Mamore would afford a more direct access to the Row ferry, and the church from the Loch Longside farms, and contribute to the comfort of a very considerable portion of the population.

From the position of the parish, our extra-parochial communication is chiefly by water, for which since the use of steamers, there are abundant facilities. Not many years ago, an open packet boat from the Row and Kilcraigin ferries was the ordinary mode of conveyance to Greenock; often against wind and tide would hours be spent in crossing the frith; now, there are two or three steamboats at all seasons, and in summer, arrivals and departures at the Gareloch ferry seven or eight times a day. At all times, by the row-boat, passengers can cross the Gareloch for the interior to the east. The channel of the ferry, at low water certainly not more than one-sixth, widens, with the return of the tide, to upwards of half a mile.

Of late years, a daily penny post subsidiary to Helensburgh, has been added to our means of communication. It was established on the condition that, although arriving on the Sabbath, no bag should be made up or dispatched as on other days. Its time has rather varied. At present, it arrives at twelve and departs at half-past two.

Ecclesiastical State.—In the twelfth century Rosneath was a parsonage, the patronage of which belonged to the Earl of Lennox. The territory which the name then included, with the patronage of the church, Amelec, a younger son of Allwyn, Earl of Lennox, obtained for his patrimony in 1225, granting the church with all its pertinents in perpetual alms to the monastery of Paisley. By an agreement in 1227, between the Bishop of Glasgow and Abbot of Paisley, the monks of that abbey were allowed to appropriate the church of Rosneath, and it continued in their possession till the Reformation. They enjoyed the whole of the revenue, and employed a curate to perform divine service.

At the Reformation, the revenue was let by the Abbot for L. 146, 13s. 4d. per annum; and in 1587 the patronage and tithes, then held by Lord Claud Hamilton for life, as commendator of Paisley, were granted to him and his heirs for ever, along with the other property of the monastery, now inherited by the Marquis of Aber-

corn. The patronage of the church was afterwards acquired by the Argyle family, with whom it still remains.

The church, although situated within about two miles from the southern boundary, from the peculiar form of the parish, is perhaps more convenient than it could be elsewhere for an equal number of the people. It was built in 1780, rather prior to the revival of that taste in architecture which has adorned so many of our rural districts with convenient or rather elegant churches. Were it a matter of much importance, one might regret a structure had not been erected to harmonize in some degree with the exquisite beauty of the environs. It is an edifice of the oblong or barn form, and that of the very plainest description. The belfry must always be excepted, which is singularly symmetrical in its proportions,—the only relique of that more ancient fabric, which the modern parallelogram supplanted: cruciform, and dedicated to the Virgin Mary,* very aged people still speak with considerable reverence of its venerable and picturesque appearance. Its exceeding uncomfortableness had determined the heritors to demolish it; and it is very probable that the incurable damp in its walls may induce, respecting the present church, a similar decision.

It is, however, sufficiently commodious for the indigenous or ordinary population; but in summer, when the cottages and villages throughout the parish are studded with sea-bathers from the interior, it is often so crowded as to render the congregation very uncomfortable.

The living consists of 210½ bolls of meal, 26½ of bear, and L. 8, 10s. in money, with an allowance of L. 5 by his Grace the Duke of Argyle for communion elements. The teinds are exhausted. The glebe contains not more than 6½ acres, the greater portion of which is very inferior land.

The manse is newly built, in every respect affording a comfortable residence for the minister's family. The former manse, although not an old house, and thoroughly repaired about twenty years ago, on account of damp, the heritors, perhaps wisely for themselves, at all events most considerately of the minister's comfort,

* This only traditionally,—for in whatever way the assumed sanctity of the place depended upon the patronage of the Virgin, even in the charter of the twelfth century, the church is designated the church of St Nicholas. It is probable the church or religious house at Kilcraigin, originated the relationship, which secures to this isle the soubriquet of the Virgin promontory, the more popular translation of the name.

instead of enlarging, resolved to convert into a quarry for the present edifice.

153 families attend the Established Church ; and 3 are Dissenting or Seceding families.

Education.—The different branches of a commercial and classical education are very efficiently taught by the parochial schoolmaster ; and every day the children under his care are instructed in the principles of religion. The average attendance may be rated at 70, although in the winter season upwards of 100 sometimes are at school. The school-house was built a few years ago, a very handsome and commodious structure, superior to any in the county, reflecting great credit, at once upon the liberality and taste of the heritors. The schoolmaster's house is at a little distance from it, immediately contiguous to the church, with accommodations much superior to what the statute provides for that class of most deserving men. His garden is much less than the legal dimensions, but he enjoys an allowance in lieu of that deficiency. The salary is the maximum, which, with the fees, 2s. 6d. for reading, 3s. for writing, and 3s. 6d. for arithmetic, may constitute an income of between L. 70 and L. 80 per annum.

The only other school in the parish is at Knockderry, on the shore of Loch Long. The teacher there has a salary of L. 35 a-year, guaranteed to him by Mr Lorne Campbell, his Grace's factor ; and although the parents pay at the rate of 5s. per quarter for each child, the fees fall greatly short of the sum guaranteed, from the circumstance of the school commanding pupils from a very limited population, but whose distance from the parish school rendered its erection necessary,—the expense of which was solely met by the Duke of Argyle. Although less, it is built upon the same principle as the parochial school-house. Both houses are much more commodious than at present is needful, and may be considered as anticipating any probable increase of population in their respective districts, for a century to come.

It may be stated, that the people are universally anxious to have their children educated. All the natives of the parish, male and female, are taught at least to read and write ; and although individuals from time to time are found that can do neither, they are generally natives of Argyleshire, servants to the different farmers.

Poor and Parochial Funds.—There are nearly 30 on the poor list ; these, chiefly desolate widows, and frail lone women—only two men, indeed, the one blind, the other lame, receive any relief

from the funds. The amount of poverty is not so great as such a number in so small a parish might seem to indicate, for assistance is rendered to the needy long before they reach that extremity of destitution, which in some districts seems to be held as an indispensable antecedent to the bestowal of public alms. The allowance varies from 15s. to L. 5 in the year. The mean amount of collections at the church amounts to about L. 35 : there is also interest on L. 170, and a donation of L. 10 from the Duke of Argyle. At present, there are three lunatics in different asylums chargeable upon the parish. To meet this extraordinary outlay, the heritors, by a judicious arrangement, subscribed, in proportion to their respective interests in the parish, the greater portion of the necessary funds ; and for the reversion the kirk-session are responsible.

One of the lunatic cases is of peculiar interest. Formerly the individual had been confined for more than a twelvemonth, and was dismissed perfectly cured. For five years he continued sane ; and, during that time, he liquidated, from the proceeds of his spade labour, at the rate of L. 5 per annum, the whole of the outlay which the session had incurred. A Bible was given him as a memorial of God's goodness to him, and the integrity of his conduct,—which he had not in his possession more than two or three months, before a relapse ensued ; and although convalescent, he is still in confinement.

When any case of more than ordinary distress occurs, the people are in the habit of raising contributions throughout the parish ; and nothing can be more conclusive of their sympathy with each other, than the amount which in this way is often raised. It cannot, perhaps, be stated that there exists any general disinclination in the poor to receive assistance from the session, although instances do occur of extraordinary exertions made by the kindred of the parties, rather than they should apply for it. One widow, with several children, not long ago entreated the minister to give her allowance to some other person, on the plea,—that her father was able to assist her ; and another individual, about the same time, prevented a subscription in behalf of his brother's family, who had died prematurely, on the ground that they should always have a share of what he himself possessed. Another example of no ordinary interest ought not to be omitted. One day, the minister met two labouring men on the Gareloch shore, and, upon inquiry, discovered, rather with difficulty, that they were raising money to assist a poor parishioner, who had been long a bed-ridden invalid.

They would take nothing ;—they were not going to the manse, nor to Baremman, nor the Clachan, nor Portkiln. “ You have all enough ado with the poor,—it is right we should go among ourselves, the commonalty.” The feeling was too sacred to repress. They were allowed without further molestation to proceed on their way ; and they collected from among themselves about L. 9, which met the necessities of their young friend so long as he lived.*

These instances indicate a right spirit in the people. The readiness with which they thus assist each other seems to have prevented the feeling of degradation, when they are assisted from the general fund,—which, indeed, they are besides led to regard in the light of a friendly society fund, to which in their day they had regularly contributed.

It must not be omitted to observe, that, in addition to his annual donation, the Duke of Argyle allows pensions to all his infirm labourers, when unable to work,—also to the widows of labourers, and their children, until able to do something for themselves,—a hereditary compassionateness worthy of the patriarchal interest in the comfort of their dependents, which has so long distinguished the house of Argyle.

Library.—A subscription library exists in the parish, consisting of several hundred volumes in all departments of literature. It is rather in a more flourishing condition of late than formerly ; but still the number of subscribers is considerably below what even our limited population ought to furnish. The subscribers are chiefly among the labourers and artisans, not the farmers. There is also a small juvenile library, consisting of religious publications, exclusively for the use of those who attend the Sabbath school and the more private instruction of the minister.

Neither friendly society nor savings bank exists in the parish, but several individuals, chiefly farm-servants, send their deposits to Greenock, and these are rather on the increase.

Inns.—Lately there were five, now there are only two in the parish,—the ferry houses of Row and Kilcraigin. The privilege which this parish enjoys in a magistracy, which resorts to all just

* But the most remarkable case in the parish of the relief of the destitute occurred some years ago. A young woman was supported on her deathbed by the charity of sympathizing friends. From the subscription edition of the memoir of her life more than L. 600 were raised, exclusive of all expenses, and the author devoted the entire amount to the benefit of her surviving kindred, who are in circumstances of extreme poverty.

expedients for diminishing the opportunities of indulging in the use of intoxicating liquors, cannot be too highly valued. From the evil, likely to inundate some of the contiguous parishes, by the proprietors encouraging rather than preventing the multiplication of licenses, the people of this parish are comparatively secure.

Fuel.—The ordinary fuel is coal in the southern part of the parish; elsewhere peat is used to a considerable extent. The coal is generally brought from Glasgow;—of peat, the summit of the ridge affords an inexhaustible supply. Including carriage, the coal in ordinary years costs 6d. per cwt.

MISCELLANEOUS OBSERVATIONS.

Since the date of the former Statistical Account, very considerable changes must have taken place in the parish, of which a few examples may be given. Then, it seems there were 96 herring fishermen, manning with hirelings, about 40 wherries, from which one must conclude almost the whole effective male population were occupied during the season in that precarious calling. The farms could not but be very imperfectly cultivated; it is well known, indeed, that they were generally in a very miserable condition, the return of produce not averaging threefold. With few exceptions, they merited the appellation of crofts rather than farms.* The cultivation of the soil, the tillage of this peninsular ridge, must have been of inferior importance in their eyes, to those labours in the deep waters, for the proceeds of a summer fishing were sometimes more than double the rental of the whole parish. Such a precarious, although often lucrative vocation, was not favourable to the promotion of regular habits, accompanied as it was with such practices as obtained here. The division of funds by each boat's crew, was signalized by a gathering of all the neighbours, and this reci-

* The average might now be stated at 7 or 8 seeds. On some farms L.30, sometimes L. 40 Sterling have been realized from an acre of potatoes, for the growth of which the soil generally seems peculiarly favourable. The great stimulus to agricultural improvement in the parish, was given by the late Duke of Argyle, himself interested in rural pursuits, under the active agency of his factor, Mr R. Campbell, one of the few first members of the Highland Society still surviving. He had powerful prejudices to combat, but with energy and decision he prosecuted, what he deemed so indispensable to their own improvements, and the farmers generally can now appreciate the benefits resulting from having been so resisted and controlled in the management of their own fields. His successor, Mr Lorne Campbell, the son of a gentleman who occupied the same important office, nearly a century ago, most efficiently sustains the same spirit of parochial improvement—giving free effect to the kindly feeling so long hereditary in the family of Argyle to their tenantry: while he displays on the splendid fields of his own farm, unmatched for beauty of situation in the country, those almost horticultural niceties of *doing up* which distinguish the most noted of the plains and valleys of the lowlands.

proximity of civilities, diffused over several weeks of their vacation, bore very hard upon their sobriety and temperance.

Now, not half a-dozen individuals prosecute the fishery beyond the shores that skirt the farms, which now, with few exceptions, would creditably bear comparison with fields of similar size in the most highly cultivated counties.

Then, also, according to that Account, there were "plenty of whisky houses in the parish," which must have been fatal attractions during the long nights of winter, to the unoccupied fishermen. Now there are just two regularly licensed—"the two Ferry houses," if not to the parishioners, yet to the stranger and the traveller considered indispensable conveniences.

Previous to Huskisson's Act of 1829 for the encouragement of legal distillation, many of the cottagers were engaged in smuggling operations, like others in the mountain districts of the contiguous counties. The position and form of the parish rendering it peculiarly suitable for the prosecution of this unlawful manufacture and traffic, others than the natives burrowed with their stills in the sequestered ravines. For many years these illicit practices have been altogether abandoned; but when the mind of a community has been long familiarized to any evil, the demoralizing consequences may linger long after the evil itself shall have passed away.

In those days also, and till within these very few years, other practices, although not violating any distinct law, yet doubtless offending decorum, very generally prevailed. At marriages, for example, numerous crowds assembled, and generally they were very boisterous festivities. On the intermediate days, before the kirking, the young pair with their attendants, preceded by the bagpipe, perambulated the parish, visiting the cottages that had furnished their quota to the carnival. The ceremonies were closed by the whole party, after Divine service on Sabbath, adjourning for refreshment to the contiguous tavern.

Now, marriages consist of small family parties; only the nearer kindred of the bridegroom and the bride meet on the happy occasion, and thus is secured a far greater delicacy in the expression of kindly sympathies, than marked the penny or crowded bridals of former times.

Baptisms were habitually desecrated by the accompanying ceremonies. The kindred and friends assembled with the parents after the dismissal of the congregation, and proceeded, like the marriage parties, to eat and to drink in the house of refreshment, under the

pretence of toasting prosperity to the child and its family. Now such a practice is no longer known.

At funerals, four services or rounds of ardent spirits, with accompanying viands, were considered as necessary out of "respect to the dead." Now, only once spirits or wine is presented, and nothing can exceed the becomingness of the funeral rite.

Again, if elsewhere New Year's Day was a festival, here it seemed to absorb the mind of the whole people. For weeks, the youths had been preparing for the great annual game; and in one of the fields contiguous to the church, assembled many hundreds, old and young, with music and banners, either to witness or to join in the shinty combat of the day. At night succeeded a ball, which generally did not close till the dawn of the following morning. Now the game is almost abandoned, and there is no ball. Divine service is performed in church at the ordinary hour, and this year, the day once so signalized with boisterous festivities, had a most pleasing aspect even of Sabbath tranquillity.

This sketch of the change in the manners of the people within a period of not many years, may be closed with an additional illustration; and those who have had opportunities of judging of the practice of the district will best know how to appreciate its singular interest. On the Saturday evening of a communion, had arrived the usual supply for the consumption of the following day, as in former years: particular circumstances had urged the minister to address his people on the propriety of at once abandoning the old hereditary practice of the district, and not one individual resisted his counsel, or entered the threshold of the house of refreshments. To the end of the service they continued engaged in their devotions, like a quiet family party assembled to eat the passover.

These are some of the changes, among others, that might be noticed, as significant of an ameliorated condition of society. Relying, however, on the authority of aged people, it might seem that the future generations are far from the moral and religious standard of their fathers. A very old man, not long ago, stated to the writer, that, although the Bay of Campsail be very beautiful, it was once to him more so; when a little boy, early on a summer Sabbath morning, he would go down to the shore and hear the fishermen at anchor in the bay singing the praise of God in their boats, for each boat then had family worship:

Be it devoutly hoped that some future statist shall be able to say,

that, early on the summer Sabbath mornings, “arises the voice of rejoicing and salvation as in the tabernacles of the righteous,” from all the cottages and villas around the bays of the Gareloch.

May 1839.

PARISH OF CUMBERNAULD.

FRESBYTERY OF GLASGOW, SYNOD OF GLASGOW AND AYR.

THE REV. JOHN WATSON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—CUMBERNAULD, in Celtic Cumar-an-alt, is said to signify the meeting of streams, descriptive enough of the situation of this parish,—several brooks uniting their streams a little below the village of Cumbernauld. As it originally formed part of the ancient kingdom of Cumbria, comprehending the south and south-west of Scotland, as well as Cumberland in England, it is supposed by some to have derived its name from the Cumbrians. Nothing, however, is more involved in mystery, than the derivation of names, and this, like many more, rests on mere conjecture.

Extent, &c.—The parish of Cumbernauld, situated at the eastern extremity of Dumbartonshire, is bounded on the west, by the parish of Kirkintilloch; on the south, by the parish of New Monkland; on the north and north-east, by the parishes of Kilsyth and Denny; and on the east, by that of Falkirk, all in the county of Stirling. From east to west its length is about 8 miles, and its breadth from north to south from 3 to 4 miles.

Geology.—This parish is formed of a succession of ridges of whinstone or trap, running in parallel lines to each other, in a direction from east to west; and excellent metal for making roads or paving streets, and for building farm-houses and fences, is here in great abundance. Freestone also abounds in various parts of the parish of excellent quality, and for the purpose of building is worked to a very considerable extent in the lands of Netherwood, adjoining the Forth and Clyde Canal. Limestone on the same lands, and also at Cumbernauld, of a very superior quality, is worked to a great extent, the former averaging above L. 4000, and the latter L. 2500 annually. The mine of Netherwood at present is

cleared of water by manual labour, and Cumbernauld by an ingenious hydraulic machine ; but I apprehend that, ere long, some more powerful means for removing the water will be found to be necessary. The dip in both is east and south-east. The lime strata, for properly speaking there are three strata, or the lime post, is between 8 and 9 feet in thickness, lying between an indurated freestone and blaise ; on the east, it is cut off by a whin dike ; and on the west it is separated from the coal district by a ridge of sandstone. About 20 fathoms below the limestone, there is a stratum of coal not worked ; but as the parish lies on the boundaries of the coal fields, which stretch into Fife on the east, and into Lanarkshire and Ayrshire on the south and west, coal is found in different parts of the parish, but chiefly of that sort called smithy coal. At the Hirst, near to the free-stone quarry above-mentioned, it is worked to a very considerable extent. About 1400 tons will be the average output. Much of it is made into coke or char for the public works in Glasgow, &c. About two tons of coal will make one ton of char. This mine is horizontal, the coal seam from 12 to 18 inches thick,—the dip south-east, is level free. The depth of this mine from the surface is from 27 to 37 fathoms. Large coal is found at a greater depth, and is wrought to a small extent only, not being of a good quality. It is supposed, however, that, by sinking to a greater depth, coal of a superior quality will be found. Near to this, on the farm of Westerwood, under lease to the Carron Company, is a mine of ironstone wrought by them to a small extent, but this mineral is found in various other places of the parish.

Botany.—Among the few rare plants to be found here, we may mention Ivy-leaved duckmeat, *Lemna trisulca*, on the banks of the Forth and Clyde canal ; Alexanders, *Smyrnum Olusatrum*, at the back o' Bog ; rosebay willow herb, *Epilobium angustifolium*, *Cochlearia Armoracia*, horse-radish.

Of plantations, there may be above 500 acres ; consisting of oak, ash, elm, beech, lime, plane, alder, horse and sweet chestnut, poplars, spruce, larch, &c. which beautify, shelter, and fertilize the country. Holly thrives well, and grows to a large size ; and there are some very fine trees of a large size near to Cumbernauld House ; and in the Vault glen there are some larch trees planted soon after the introduction of that tree into Scotland, of great height and girth ; also some very fine specimens of the Spanish chestnut.

In some favoured spots, apple, plum, pear, and cherry trees, yield

occasionally fair crops. The climate, however, seems not to be adapted for orchards, the finer kinds being liable to blight, and all sorts to canker and rust. The frosts and cold east winds in April and May often destroy the blossom, and render fruit in this place but a very precarious crop.

Zoology.—Grouse and black-cock breed in the moor of Fannyside, and duck and teal in the loch of that name. Pheasants, partridges, plovers, snipe, woodcock, &c. frequent the woods and low grounds. Some years ago the *jambe rouge*, or red-legged partridge, was introduced here by the Honourable Admiral Fleming, but it is supposed that the climate was too cold, as none of them are now to be seen. Swallows and martins, &c.; cuckoos visit us annually. The other small birds are such as are found all over the country, blackbirds, thrushes, linnets, and finches, larks, &c.—Among birds of prey, and these are not numerous, are the glade, the sparrowhawk, and the owl. There are three well-stocked rookeries in the parish. Crows, doubtless, are intended by the Creator to serve a useful purpose; but in spring and autumn, where they are numerous, they do very considerable damage to both the grain and potato crops.

In spring, the roebuck is to be found in the woods of Cumbernauld and Castlecary, where are also a few squirrels. The other wild animals are, the fox, polecat, weasel, club-tailed weasel, or ermine, and the otter. Two wild cats were lately shot. The skin of one of them was nearly as large as that of a fox. I believe that no badgers are now found here.

Climate.—The parish having an elevation of 230 or 240 feet above sea level, the air is sharp; but though sharp it is not unhealthy. The prevailing winds are west and south-west, which, loaded with the vapours of the Atlantic, render the climate soft and rainy.

Hydrography.—From its elevated situation, this parish has no rivers,—the Kelvin, which divides it from Kilsyth, and the Luggie, which separates it from New Monkland, being here inconsiderable streams. Fish formerly abounded, it is said, in both, and in their tributary rivulets; now, however, a few trout are only to be found. This decrease is ascribed to the quantity of lime now laid upon the ground, and the flax steeped in the waters.

With the exception of Fannyside Loch, in the moor of the same name, there is no fresh water lake in the parish. Formerly, there were others, which have been drained and turned into arable land. Fannyside Loch is but a few feet deep; it covers about 60 acres of land, has a few pike and perch, but no trout. In its bottom and

on its banks, there is a very fine white sand, which would answer well in the manufacture of glass.—The only other collection of waters in the parish is the Forth and Clyde Canal, which runs through the north side of it for about four miles from Castlecary on the east to Achinstary on the west. Pike and perch are found in the canal, and coot and wild duck are seen upon its shores. On a small stream near to the old house of Castlecary, there is a waterfall of about 80 feet, which, together with the deep dell, the overhanging and surrounding woods, the old mill and miller's house now in ruins, the murmuring of the water, and the songs of the birds which strike the ear, renders it a scene at once picturesque and romantic.

II.—CIVIL HISTORY.

I am not aware of any history of the parish extant. The Old Castle of Cumbernauld, together with the barony, which in the end of the thirteenth century belonged to John Cumyn, Earl of Buchan, came into the possession of the Flemings of Biggar and Cumbernauld, in the course of the fourteenth century, who were afterwards created Earls of Wigton.

In the early period of Scottish history, the Flemings of Cumbernauld are often mentioned, and make a distinguished figure in the transactions of those unsettled times. They came originally from the low countries. Under a grant of David I., Baldwin, a distinguished Fleming, settled at Biggar, in the upper ward of Clydesdale, and in the reigns of Malcolm IV. and William I. was Sheriff of the shire. Sir Malcolm Fleming was Sheriff of Dumbarton in the reign of Alexander III. Robert, his son, was one of the chiefs who, at the treaty of Brigham, March 12, 1289–90, proposed the marriage of Margaret of Scotland with Prince Edward of England. He swore fealty to Edward, assisted at the murder of Cumyn at Dumfries, and was one of Bruce's associates in his arduous endeavours to restore the liberties of his country, and received from him a grant of the lands of Leinsie and Cumbernauld, they having fallen to the Crown by the forfeiture of Comyn. Sir Malcolm Fleming, his eldest son, remained true to the family of Bruce, and belonged to one of the four corps into which the Scottish army was divided at the disastrous battle of Halidon Hill, 19th July 1333. Sir Malcolm Fleming retreated from the field of contest, and secured the Castle of Dumbarton, of which he was governor, and from thence carried in safety to France, the young King, David II. with his infant consort, Joanna, where they found protection until their return to Scotland, 4th

May 1341, when they were safely landed at Inverbervie, a small sea-port on the coast of Kincardineshire. It is probable that Sir Malcolm remained in France during the stay of his King and Queen : he returned home along with them, was raised to the peerage by David II. who created him Earl of Wigton, and gave him a grant of lands in the same county. According to the English historians, he was taken prisoner at the battle of Durham, 7th October 1346 ; and it is said that David II. along with his favourite and faithful servant, Malcolm Fleming, was, on the 2d January 1347, sent to the Tower of London, where he suffered a long and dreary captivity ; while others maintain that the Earl of Wigton made good his retreat from the battle of Durham, and in proof cite from the Calendar of Charters the following title: “ De capiēdo Robertum Bertram, qui Malcomum Fleming, inimicum Regis, evadere permisit.” He is simply called Malcolm Fleming, probably for this reason, that the English Government did not recognize the right of the Scottish Kings to confer titles of honour. Thomas Fleming, his grandson, by a deed of sale dated at Edinburgh, 8th February 1371, sold the Earldom of Wigton to Archibald, Earl of Galloway, “ pro una certa et notabili summa pecuniæ propter magnas et graves discordias, et inimicas capitales, inter me et indigenas majores comitatus prædicti exortas.” This sale was confirmed by King Robert II. 7th October 1372 ; and he resigned the Barony of Leinzie, in Dumbartonshire, in favour of Malcolm Fleming of Biggar, which was confirmed by Robert II., 20th September 1382. Dying without issue, he was succeeded by his cousin, Sir Malcolm, son of Sir Patrick Fleming of Biggar. Sir David Fleming, his eldest son, distinguished himself at the battle of Otterburn, 1388, was of the commission for a truce with England, 6th July 1405, attended James the Prince of Scotland to the Bass, saw him safe on board the ship that was to convey him to France, and, as he returned home on the 14th of the same month, was waylaid and murdered by James Douglas of Balveny, afterwards seventh Earl of Douglas, at Hermandstone, near Edinburgh, and was buried at Holyroodhouse. Of Sir David, Wyntone says,

“ Schire David Fleming of Cumbernauld,
 Lord and Knyghte baeth stout and bauld,
 Trowit, loveit, well with the King,
 This like guid and gentle Knyghte,
 That was baith manful, lele, and wight.” &c. &c.

It is not quite ascertained at what time the Flemings of Cumbernauld were raised to the peerage. Robert Lord Fleming oc-

curs in the Records of Parliament, 11th October 1466. They were probably ennobled by James II. who died in 1460.

In 1563, Lord Fleming held the Castle of Dumbarton for Queen Mary, when Captain Crawford, having bribed some of the workmen about the Castle, surprised and took it. Lord Fleming made his escape; but Lady Fleming, the French Ambassador Verac, together with John Hamilton, Archbishop of St Andrews, were made prisoners.

By patent dated Whitehall, 19th March 1606, John, sixth Lord Fleming, was created Earl of Wigton and Lord Fleming of Biggar and Cumbernauld. John, sixth Earl, went with James II. to St Germain's, voted against the Union with England, and, being suspected on the breaking out of the Rebellion in 1715, was, by a warrant of Major-General Williams, the Governor, committed prisoner to Edinburgh Castle, 20th August 1715, and on 24th June 1716, was liberated by an order of the High Court of Justiciary. In 1736, he was made King's Chamberlain of Fife, died in 1744, and was succeeded in his titles and estates by his brother Charles, who dying 26th May 1747, unmarried, the estates devolved to his niece, Lady Clementina Fleming, only child of John sixth Earl. She married, in 1735, Charles Elphinstone, third son of Lord Elphinstone, and who became afterwards tenth Lord Elphinstone. She died 1st January 1799, being eighty years of age. As heir of entail, the estates of Biggar and Cumbernauld devolved upon her second grandson, the Honourable Charles Fleming, an Admiral in her Majesty's Navy.

The barony of Leinzie, comprehending the parishes of Kirkintilloch and Cumbernauld, originally belonged to Stirlingshire. In the reign of Robert I. or David II., Malcolm Fleming, then Sheriff of Dumbarton, got them disjoined from Stirlingshire and annexed to Dumbarton, while Drymen, Killearn, and other parishes were disjoined from Dumbarton and annexed to Stirling. An act of Parliament in 1503 restored them to their original counties; but this act having been repealed, 8th May 1509, Leinzie was again annexed to Dumbarton, and Drymen, &c. to Stirlingshire. In 1339, or thereabouts, another attempt was made to alter this arrangement, but was defeated by the Earl of Mar, then Sheriff of Stirlingshire. Since then, no change has been made in this arrangement.*

* Vide, Chalmers' Caledonia, Hailes' Annals, Wood's Peerage.

Antiquities.—There are no remains of any religious houses; yet the names of several places, as Achinbee, Achenkill, Chapelton Kildrum, Kilmuir, Croy, and others, would lead to infer that there had been several within the parish.

The only relic of antiquity is Graham's Dike or Agricola's Wall, of which there are some traces. It enters the parish at the Red Burn bridge, near to the Roman camp at Castlecary, where the turnpike road crosses the burn, and runs nearly parallel with the Forth and Clyde Canal, through the whole length of the parish till it enters the parish of Kirkintilloch, at the Barrhill, a little south of Achinstarey.

No part of the wall, which is said to have been 20 feet high, and 24 feet thick, now remains; but the fosse, which tradition states to have been 20 feet deep, and 40 feet wide, is distinctly to be seen throughout its whole length, part of it being used as a parish road. Running in a straight line, partly over elevated and rocky ground, little of it could have been filled with water; but to compensate for this, and where most required, it had the Dullatur Bog, then a loch or impassable morass, upon its northern bank. Near its eastern extremity, on the farm of Toll-Park, the fosse, and part of the road which run along its southern boundary, may still be distinctly seen. But, for a more particular description, we refer to the authors who have more minutely described it.

Some stones with inscriptions, found in or near the wall, may be seen in Glasgow College Museum.

In the garden at Nethercroy, near Achinstarey Bridge, there is to be seen a Roman altar, bearing the following inscription:—

Nymphis,

Vexillatio

Leg. VI. vic.

P. ET. SUB. FA

GIO. LIBERA.

Into the south wall of the mansion-house of Nethercroy are built two stones. On one of them are three male figures clad in armour, and bearing spears and shields. On the other are two female figures, one of them as having come from the bath, regarding attentively her attendant, who is in a bending posture, as if lifting something from the ground.

On the farm of Carrickstone or Carrigstone, on the rising ground nearly west of the church, and a little to the south of the Roman wall, there is a large stone, called the Standing-Stone. Though con-

siderably larger than the one above noticed, it is of the same figure, and probably was used for the same purpose, that of an altar. It has no inscription, nor any figure upon it. But it has a hole in it; and tradition says, that this hole received the standard of Robert the Bruce, then Earl of Carrick, who here assembled his army before marching to the field of Bannockburn, 24th June 1314, which decided the independence of Scotland. Supposing this to have been the place appointed for the rendezvous of the army, in a military point of view, Bruce seems to have made a judicious selection. On the north, he had the Dullatur Bog, then a loch or impassable morass; so that, in case of an attack, he had only to defend the narrow defile at the Castlecary on the east, or the narrow valley through the Balloch Bog on the west or south-west; while, in case of need, he secured for himself a safe retreat, either upon the River Avon and Bathgate to the south-east, or upon the Water of Luggie and the Clyde to the south. This account, it is said, is to be found in some of our early historians.

It has already been observed, that the Forth and Clyde Canal traverses the whole length of the parish on the north. And in its formation, through the Bog of Dullatur, swords, pistols, &c. the bodies of men and horses were found in it, and what seems somewhat marvellous, a trooper, completely armed and seated on the horse, in the exact posture in which he had perished. This bog lay directly south of the field of the battle of Kilsyth, between the gallant Marquis of Montrose, and General Baillie, 15th August 1645; and it is supposed, that these were some of Baillie's men who, in their haste to escape, being either ignorant of the ground, or hard pressed by their enemies, had rode into the bog and there perished.

A Roman road, leading from the south to the camp at Castlecary, may be partially seen in the moss of Fannyside; and in the same moss, the inhabitants direct the stranger's view to certain hollows, or hags, as having been places of temporary concealment for the Covenanters, or persecuted remnant during the time of Charles II. and his brother James.

Near the house of Cumbernauld, there is an eminence called the Towe Hill, where in the olden time, the feudal Baron held his court. The gallows-knowe, it is well known, was always near the Mote Hill, *alias* Court Hall of those times; and we are inclined to suppose from the name, that the Towe Hill might be the place where the Baron's sentence was carried into speedy execution.

Not far from this, is the Vault Glen: and till very lately the farm house called the Vault, on the edge of the glen, was standing; whether, as its name vault would import, it was anciently a prison or place of confinement, is not well known.

At the Chapelton, on the farm of Achinkill, it is supposed there had been a religious house and burying-ground: for upon the removal of the houses, some human bones were turned up by the spade and plough, but nothing else of interest was discovered. A century ago, January 1739, there was a very violent storm of wind, by which many houses were unroofed, windows broken, large trees blown down, and much damage done by it in many other respects.

It is worthy of notice, that, as a very violent storm of wind happened in January 1839, the same should have occurred in 1739. Session Records, 7th February 1739. The same day the session, "considering that the heritors have been often called upon to repair the damage done to the kirk windows by the violent storm in January last, yet it remains utterly neglected by them, appointed a glazier to mend and refit said windows, and to be paid by their treasurer."

It also appears that the year 1739 had been a bad season, for, 20th January 1740, "the session, considering the great want and hardship, which a great many honest families in this parish are under, through the calamities of a late hail blast, and the present cold and dearth, agreed, that the circumstances of such families shall be inquired into, and their necessities carefully relieved by the several members of the session, especially the moderator, to whom they are readiest to let their case be known, with confidence it will not be divulged to the damage of their credit."

During the Rebellion 1745-6, a party of Highlanders having visited Cumbernauld, were followed by a party of the King's dragoons, who took up their quarters in the old castle or house of Cumbernauld, which, after the building of the present mansion, 1731, had been converted into stables, &c. "sic transit gloria mundi," and upon their departure set it on fire and burnt it to the ground. This happened a short time before the battle of Falkirk, between Prince Charles Stewart and General Halley, 17th January 1746. The fury of the dragoons seems to have evaporated with the smoke and the flames of the old house, for the present mansion with its inmates they left unscathed.

Ecclesiastical History.—Originally Cumbernauld formed part of

the parish of Kirkintilloch, from which, by a decret of the Lords of Ereccion and Plantation of Kirks, it was disjoined in 1649, and erected into a separate parish by the name of Easter Leinzie, or Lenyie, as Kirkintilloch was of Wester Lenyie,—a word derived, perhaps, from the ancient British Leveyn or Lleven, signifying smooth. An account of this parish before the disjunction will fall more properly under the Report of Kirkintilloch.

An application to Parliament in 1621, for building a new church in the middle of the parish, having failed, a decret of the Commissioners, as above noticed, in 1649, ordered the parish of Leinzie to be divided into two parishes, which was carried into effect shortly afterwards. The communion tokens bear, "Erected 1656," with the words, "Urit nec Perit," over the burning bush. The settlement between the presbytery and the Earl of Wigton for manse and glebe was in 1658. Mr Thomas Stewart, the first minister, was ejected in 1662 for nonconformity. He was succeeded by Mr Gilbert Muschett, with whose induction, 11th May 1666, the session record begins, "The session's book of Easter Leinzie beginning in the year of God one thousand three score and six.

"At the Easter Kirk of Leinzie, the eleventh day of May 1666, The whilk day Mr Robert Bennet, minister of Kirkintilloch, maid sermon, and thereafter did institute Mr Gilbert Muschett to be minister of the said kirk, and did receive the oath de fideli," &c.

With the exception of an anxiety often manifested by the minister and elders about strangers coming into the parish without testimonials, nothing deserving notice occurs in the record till 5th November 1676, when the session appoint all persons who go out of the parish to get their children baptised at conventicles, to pay 4 libs. Scots, and be cited to the Presbytery; and several persons are mentioned as liable for this fine.

From this time, the minister from the pulpit often forbids the people to attend conventicles, to reset rebels and fugitives: and on 9th September 1683, he strictly warns them to take notice "that none of the twelve persons declared fugitives be resett in none of their quarters, viz. James, John, and George Russell in Gaubet-hill," with nine others who are named.

Subsequent to this, the parish church seems to have been all but deserted. Almost every Sabbath the minister complains of the people absenting themselves from the parish church, and going to the conventicles, and threatening the elders with deposition from their office; but all was ineffectual, for the record often bears that

only fifteen, twenty, twelve, &c. persons, and one, two, or no elders were present, and the reason assigned is "that ane great conventicle" was held either within the parish or neighbourhood.

It is noticeable, that, after the granting of the third indulgence, Mr Muschett, 14th August 1687, intimates from the pulpit, "that he was willing to give one of the dyets to Mr Robb, the Presbyterian minister, that the offering for the poor might be preserved, and for several other reasons mentioned by the minister; and that he would write to Mr Robb thereanent betwixt and the next Sabbath, to see if he would accept of the said offer." This offer, it would seem, that Mr Robb did not think proper to accept; for on 25th September, same year, "the whilk day the people are exhorted to be regular and orderly; albeit Mr Robb is come so neeire as to keep ane meeting in the Newtoun." This exhortation, like the others, was disregarded: the former complaints are still made, "That no elders were present in the church, no offerings were gathered, that no session was kept, and that 300 or 360 heads of families, besides women and children, were absent from the church." On 15th July 1688, the twelve persons formerly mentioned are again denounced as fugitives; and the said "day intimation was maid, that the meeting-house preacher is ane rebell, and not pardoned; excommunicate and not relaxed; and ane slanderer and leisingmaker, alienating the hearts of his Majesties subjects, by not keeping the three late thanksgivings."

Some persons belonging to the parish were suspected of being concerned in the rescue of Alexander Smith at Inchbelly Bridge, in June 1688, when a soldier was killed; for in the record of date 28th October 1688, "Intimation is maid not to harbour or resett John Russell of Cattcraig, who is forfeited; John Bulloch, accessorie to the murder at Inchbellie Bridge, and James Brownlee and Thomas Smellie, his associates; who are likewise suspected to have accession to the same murder; and John Bulloch having upbraided the minister with ill-language, and carrying armes on Saturday last."

On the same day, the minister warns the people not to hear Mr Michael Robb, the meeting-house preacher, in regard of his disloyaltie, in not praying for the Queen, Prince and Royal Family, and in regard of his preaching erroneous doctrine."

In those unsettled times, the minister's person, house, and family, were assailed by some disorderly persons; for December 30th, Sunday after Christmas day, intimation is given, "That, notwith-

standing of his Majesties proclamation, several persons in this parish have, upon Tuesday, 25th December, invaded and robbed my house, taken away my armes and books, some of these persons being under public scandals, at least, the ringleaders of them, and that, though they escape punishment from men, yet the Lord our God will not suffer them to escape his righteous judgment."

The above excerpts from the session-records clearly shew that Mr Robb declined the friendly offer made him by Mr Muschett; but it is afterwards recorded that, of 30 persons who were excommunicated, the first on the list is Mr Michael Robb, the meeting-house preacher, and after the Revolution, the minister of this parish, the reasons of this sentence are noticeable. "January 13th 1689. The first Sunday after the Epiphany, the said day, 30 persons that were grievous offenders, some of them being under the scandals of adulterie, and murder, and others of them being notour railers and scandalizers of ministers, and others guiltie of ane illegal convocation and licentious tumult, having invaded and robbed the minister's person and house, having taken away his armes and books, and others of them being rebels and fugitives, furnishers and reseters of rebels, and some of them having laid violent hands both upon the minister and his wife, all these were procest with the sentence of excommunication, and are pronounced to be persons disobedient to the voice of the church, and to be obstinate and incorrigible in going on in their sinful courses and practices, and are by the said sentence cast out of the church, and debarred from the society of the faithful in meetings, prayers, and all other sacred fellowship, as unworthy, with whom any good Christian should converse untill they be ashamed of their sins, and manifest their repentance, and humiliation, that they may be loosed from the said dreadful sentence, which they have deserved by their gross scandals and offences." Then follow the names of Mr Michael Robb, William Neale, John Carmichael, Ellen Young, &c.

On 27th January, the minister mentions the tumults in Glasgow, and throughout the presbyteries of Glasgow, Hamilton, and Linlithgow, and intimates his resolution "to make sermon in the church till the Government be settled, and so long as the keys of the church door are not taken from him."

The session record ends February 3d 1689, the fourth Sunday after Epiphany, "with the minister warning the people not to join with them who make tumults, in taking away the keys of kirk

doors, or renting minister's gowns, lest they bring trouble upon themselves by such disorderly practises."—Although removed after the Revolution, Mr Muschett seems to have remained within the parish,—for so late as 1715, the record bears that several persons were cited to the session for being irregularly married by him, and censured for the same.

As far down as 1721, the meetings of session are dated at Easter Leinzie. The next entry in the record being the commencement of Mr Oughterson's incumbency, is dated Cumbernauld, 7th May 1727, which is the name which the parish now bears.

Parochial Registers.—The parish register for marriages and births begins 10th April 1688, and though much decayed seems to have been accurately kept till 1722. At this time, the parish seems to have been as populous as at present; from 1688 to 1693, the average number of registrations of births being above 100; from 1693 to 1700, about 90; from that to 1705, about 70. From this period the number gradually decreases, especially from the time of the Secession: for the five years ending with 1735, the average is 56; do. ending with 1750, about 43; do. ending with 1765, about 38.

The number of marriages about the end of the seventeenth century, averages about 23 only. From this time to 1722, there are frequent interruptions; and downwards, are total blanks in the registers; and in the same interrupted and irregular way, the record is continued to 1801. From this time, it has been carefully and pretty regularly kept, though the number of registrations does not give the exact number of births or baptisms, which is occasioned by the Secession ministers keeping a register for their own congregations.

There is no registration of burials before 1817. Since this time, one has been kept with great accuracy. During the seven years ending 1831, the average of births was 67 $\frac{2}{3}$; deaths, 48 $\frac{1}{2}$; marriages, 24 $\frac{1}{2}$. It is worthy of remark, that during the year ending 31st December 1831, the deaths exceeded the births by one, the births being 73 and the burials 74. From the great mortality in 1832, the same excess occurred. These, however, are rare occurrences, for though the situation be high, and the climate moist, the parish is by no means unhealthy. Several individuals now living are considerably above eighty, two or three about ninety years, and some others died lately at this advanced period of life.

III.—POPULATION.

The population in 1755 was	2303
1791,	1600
1801,	1795
1811,	2176
1821,	2864
1831,	3080

In 1821, Cumbernauld village had a population of 950, which, in ten years, had increased 450 in 1831.

Cumbernauld village,	-	-	-	1400
Condorat do.	-	-	-	501
Country, -	-	-	-	1179
				— 3080

The number of families, 700, gave $4\frac{1}{2}$ to a family, or $4\frac{1}{2}$ nearly.

During the seven years ending with 31st December 1836,

the average of marriages was	33 $\frac{1}{2}$
Births,	79 $\frac{1}{2}$
Burials,	58 $\frac{1}{2}$

The chief employment of the people is cotton weaving, there being above 560 weavers' looms in the parish, or nearly one-fifth of the whole population. Some time ago, weaver's work was hardly to be obtained. At present, work is plentiful, but the prices are small: upon an average, the weaver's weekly earnings will not exceed 5s. or 6s. clear; and considering the price of provisions, and how few are of provident habits, many must be suffering privations. Indeed, the fluctuating nature of the cotton trade, and the small remuneration, have induced many of the weavers to relinquish the loom, and have recourse for employment to the coal and ironstone mines.

The above, with other causes, some of them of a political nature, have produced unquestionably very great changes in the moral character and habits of the people,—not for the better, it is much to be feared; and has hindered them from prizing as they ought, and, therefore, from giving to their children, that education which once was the pride and the honour of the people of Scotland. The natural effect of this is, that though few are unable to read, yet they are allowed to grow up in comparative ignorance of religion and its duties; and hence may be dated the decline of morality,—disinclination to religion and to religious duties,—neglect and disregard of the Sabbath and of Sabbath institutions,—the increase of profanity and crime, and, of late years, the increasing magnitude of the criminal calendar. Notwithstanding of this, and though we have some turbulent spirits among us,—and it is to be regretted that this class seems upon the increase,—still the character of our population generally is quiet and orderly, in the midst of their many privations.

The principal exception from this general character, consistent

with my knowledge, is that of a few deluded men in the village of Condorat, who, in the year 1820, joined some disaffected characters from Glasgow, and accompanied them, upon 6th April 1820, to Bonnymuir, about three miles west of Falkirk, where, engaging a party of the King's troops, they were defeated and taken prisoners. One only was a native of the parish, and was executed at Stirling for high treason; the others had their sentence commuted to transportation.

There are some poachers; but since the change in the Excise laws, if there be any smuggling, it is inconsiderable. A change in the game laws seems in justice equally desirable.

IV.—INDUSTRY.

Rural Economy.—The parish comprehends 9145 acres, 3 roods, and 5 falls; of this number, 6168 acres, 2 roods, and 21 falls are arable; 2170 acres, 1 rood, and 12 falls pasture and moss; 556 acres, 3 roods, and 12 falls plantations and woods; and 250 acres roads and waters.

It is divided between 40 and 50 proprietors. About 20 or 25 of them derive more than L. 50 from their respective properties. Several of them have very considerable incomes. The Right Honourable Lord Elphinstone is the only nobleman who possesses property, and the Honourable Admiral Fleming the only person of rank who has a mansion-house within the parish.

The soil of the parish varies; but generally rests upon a stiff retentive till, and when allowed to lie for a few years is again covered with rushes. During the last twenty years, much has been done in the way of general improvement, by plantations, draining, straightening, clearing of stones, weeds, &c. Tile-draining has lately been tried with advantage, and still a great deal requires to be done.

The manner of farming generally may be stated to be the following: 1. oats; 2. oats; 3. green crops, potatoes, or turnips; 4. wheat, barley, or oats, with grass seeds; 5. hay; 6. pasture, for a less or greater number of years.

Lime is sometimes laid on the sward. When prepared for fallow or green crop, five or six chalders of lime, with fifty or sixty carts of dung, are allowed per acre. About the commencement of the before-mentioned period, few turnips were grown, but they are now common on every farm, and the breadth is yearly on the increase, while that under potatoes has likewise been greatly enlarged. This crop was very deficient last year, both in quantity and quality.

Mangel-wurzell has been tried, but not continued, as it is considered not to be profitable.

Admiral Fleming cultivates a number of the artificial grasses; but the Fescue, Timothy, Holci, and meadow-grasses are supposed best to suit the soil.

Twenty years ago, very little wheat was sown here. Both climate and soil were supposed unsuitable for this grain, but experience has proved this to have been a fallacious opinion, for a very considerable breadth is now under wheat. This arises from the different way of management; before the introduction of fallow and green crops, the ground was neither worked, cleaned, nor manured. Still, the farmer labours under disadvantages which no system of cultivation can remove. The continued and heavy rains which prevail in the end of the year often prevent him from getting his wheat into the ground in sufficient time before the winter sets in. Many instances of this might easily be adduced, were it necessary.

At one time flax was grown to a great extent, and when it yielded twenty or twenty-five stones or more per acre, and brought L 1, and sometimes even L 1, 10s. per stone, it amply repaid outlay and labour; but from some cause not well ascertained, of late years, the flax crops have almost altogether failed, and, of course, the culture is comparatively given up.

Wheat may average per acre from 8 to 9 bolls; barley from 7 to 8 bolls; oats from 6 to 7 bolls; and potatoes, county measure, from 30 to 40 bolls; rye-grass and clover from 150 to 200 stones tron per acre. A few meadows still remain, and when well managed and carefully irrigated, when that can be done, will yield from 200 to 300 tron stones per acre, and an excellent fodder for cattle in winter.

Live-Stock.—The breed of horses, as well as of cows, has been greatly improved of late years, and prizes for both were awarded at the show of stock of the Highland Society last autumn at Glasgow. Indeed, the dairy stock of some of our farmers, for figure and produce, equal any in the country. The milk, generally, is made into butter, and sold in the Glasgow or Falkirk markets. Little or no cheese is made here. The produce of a good cow averages L. 9 to L. 10 per annum. The grass of a milk cow costs about L. 3, 15s.; of a yeld about L. 2, 15s.; of a two-year old quey about L. 1, 10s. to L. 2; of a one-year old quey about L. 1 or L. 1, 5s. It may be sometimes more or less, according to the

pasture. The keep of a milch cow may be estimated at L. 7 or L. 7, 10s. per annum.

Leases have generally been for nineteen years, but, of late, they have been shortened, in some instances, to thirteen and fifteen. But this is supposed to be too short a term for the tenant to benefit by his lease, and this, more especially, when the farm is let at the highest offer, which is generally the case.

The farms are generally inclosed with fences of stone or thorn, and partly with both. The farm-steadings generally are in good condition;—those upon the estates of Lord Elphinstone and Admiral Fleming having been lately built or repaired, and in some cases much enlarged. The parish is well provided with roads, through the influence of Admiral Fleming. The length of turnpike roads within the parish will be little, if at all, short of twenty miles.

V.—PAROCHIAL ECONOMY.

Means of Communication, &c.—Roads are a most important branch of rural economy, and from the roads in this parish, the farmer possesses every facility in bringing lime or manure, and in conveying to market the produce of his lands. At present, there is no railroad; but the projected Edinburgh and Glasgow railroad passes through the whole length of the parish, nearly parallel with the Forth and Clyde Canal, and very nearly in the line of Agricola's Wall. Cumbernauld was erected into a burgh of barony in 1649. It had a weekly market, which has fallen into disuse. It has two fairs annually. Sometimes a considerable business in cattle is done at the May fair. At the August fair, no business is done. There is a horse race,—which is advantageous only to the publicans; and is little better than a nuisance.

Falkirk, distant nine, and Glasgow thirteen miles, are the nearest market-towns. Cumbernauld is a daily penny-post upon Glasgow on the west, and Denny on the east. The mail-coach by Crieff, and a coach by Auchterarder to Perth, a coach to Edinburgh by Linlithgow, a coach to Alloa by Falkirk, two coaches to Stirling, pass daily through this parish to and from Glasgow. Sometimes, there are more than these. In summer a coach usually passes for Callander and the Trosachs daily.

Boats with passengers for Falkirk, Edinburgh, &c. at present ply east and west four times a-day; in summer, more frequently. In connection with the passage-boats, coaches carry passengers from Wyndford Loch to Stirling, and Perth, and Alloa, &c. and

from No. 16 to Kirkaldy by Dunfermline. Luggage boats also regularly ply upon the canal with goods.

Ecclesiastical State.—The parish church, situated at the village of Cumbernauld, is nearly in the centre of the parish. Five or six families only are four miles from the parish church, which is an old fabric. It was repaired in 1810, notwithstanding the urgent solicitations of the incumbent and session, as appears from the session record, 25th March 1810, the church being altogether insufficient to accommodate the inhabitants. To obviate this as far as the old walls would admit, both pews and passages are very narrow and inconvenient. It has been repeatedly repaired since; but the dampness of the site, six doors, and the incommodiousness of the seats, make the church uncomfortable, cold, and unhealthy. The church has about 660 sittings. The communion seats alone are free. The number of communicants is about 500. The barony of Castlecary, with a population of seventeen families, by a decret of Court in 1725, or thereabout, was disjoined from the parish of Falkirk, and annexed to Cumbernauld *quoad sacra*. According to report, the minister of Falkirk was taken bound to preach in Cumbernauld three days each year. The present church is quite insufficient for the population; but, from its central situation, a church of proper dimensions would well accommodate the whole parish for enjoying religious ordinances.

The manse was built in 1827. The original glebe, by agreement between the presbytery and the Earl of Wigton, was for 8 acres. In consequence of the turnpike-road passing through it, an excambion was made, the minister getting some marshy land in lieu of that cut off by the road. At present, including site of manse, offices, garden, roads, &c. the glebe may be about 11 acres, but not all arable.

In 1820, the Court, by decret, modified the stipend to 16½ chalders, half meal, half barley, with L. 10 for communion elements.

So early as 1743, a house belonging to the Original Burgher Associate Synod, was built in the village of Cumbernauld. It was rebuilt in 1725, is a commodious place of worship, with a respectable congregation: and the minister has a salary of, I believe, L. 100.

Another meeting-house in the village formerly belonging to the Antiburgher, but now connected with the United Secession body, was built about seventy or eighty years ago. This congregation is not numerous. The minister's salary is, I believe, L. 80. Both

the ministers have dwelling-houses, and both congregations are made up from all the surrounding parishes.

Of the 700 families composing the population of the parish, about 180 belong to the Secession, and there are 5 or 6 Irish families, supposed to be of the Roman Catholic faith. In these 700 families, the annexation is not included.

Education.—The parish school is situated in the village of Cumbernauld, and is attended generally by from 80 to 90 scholars. The salary is the minimum. The dwelling-house has two rooms and kitchen. The garden falls short of the legal quantity by six falls, for which the heritors allow 1s. per fall, or 6s.

The school in the village of Condorat, two and a-half miles west of the church, is attended by from 60 to 70 scholars. Here, there is a very good school-house, and a dwelling-house for the master of two rooms and closet, built three or four years ago by public subscription. Another school at Garbethill, three miles east from the church, has about 20 scholars. Each of the teachers of these two schools has an allowance from the heritors, during pleasure, of a sum of about L. 4, 8s. annually, which small sum has been sometimes withheld. Another school in the village of Cumbernauld is upon the teacher's own adventure. The fees are the same as in the other schools.

Few persons between six and fifteen years of age are unable to read the Bible, and the numbers of those above that age still fewer, though, from the change in their circumstances, occasioned by the decline in the cotton trade, there is neither the anxiety nor the ability for giving children the education which was evinced by parents some years ago, when they were in easier circumstances.

Poor and Parochial Funds.—The average number of poor upon the roll is about 25. The average weekly allowance is about 1s. 3½d. with occasional relief both to those who are upon the roll, and to others who are not upon it. For meeting this expenditure, there are the weekly collections at the church door, averaging about L. 50 per annum; the letting out of mortcloths, about L. 7 per annum; and proclamation fees, with occasional donations from non-residing heritors. There never has been a legal assessment. Voluntary contributions and extraordinary collections have hitherto been the means resorted to for meeting any deficiencies. But as legal assessments seem desirable to some influential heritors, it is probable they may ere long be had recourse to in preference to the old way of raising funds for supporting the poor.

From donations and savings, when money was more plentiful with the operatives, and fewer demands made upon the funds, a sum of L. 160 or L. 170 had been realized : but it was all expended some years ago ; and the only sum as a fund for the poor is L. 90 bequeathed by the late Right Honourable George Viscount Keith, the interest whereof he required should be distributed to the poor annually upon the first day of January.

The dislike to being on the poor's roll is certainly not so strong as it once was, and seems daily growing weaker. Whether this be occasioned by the influx of strangers, who generally show no unwillingness to claim from the parish funds, or whether, by the heritors taking the management of the funds, producing a belief of there being a legal right to parochial relief ; whether from these or whatever causes it may spring, there is unquestionably not that feeling of shame at being on the session, as it was termed, which was wont to be when their weekly pittance was doled out to them by the elders of their respective quarters. The Dissenting congregations contribute nothing to the poor's funds. Their poor are supplied out of the parish funds. Those who assert, therefore, that the Seceders supply their own poor, cannot refer to this parish.

Library.—A subscription library was instituted a few years ago in the village of Cumbernauld, now consisting of from 1000 to 1200 volumes, and, in general, the books have been very well selected ;—owing, it is supposed, to the causes formerly mentioned, the annual subscriptions have rather decreased.

Savings Bank.—A savings bank was established in 1815. The annual deposits are from L. 150 to L. 160, and the sums withdrawn nearly the same. It does not seem to have been sufficiently appreciated by those for whose benefit savings banks were instituted ; for, with the exception of a few servants, chiefly females, the deposits have been made by the directors, by societies, or by those farmers and tradesmen who are in easy circumstances.

Societies.—A Society of Weavers, and another of Masons, were instituted about thirty or forty years ago ; but, having been established on erroneous principles, they have been declining for some time.

April 1839.

PARISH OF LUSS.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. ROBERT CARR, MINISTER.

L—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THIS parish has its name from the Gaelic *Lus*, signifying a plant or herb. Luss is the name of a small river, and the valley or glen through which it flows. As the church is situated at the influx of this river into Lochlomond, the name was extended to the parish. It was anciently written *Lus*, and is the same with the name of Luce in Galloway.

Extent, &c.—The parish of Luss extends in length from south to north about $8\frac{1}{2}$ miles. Its greatest breadth is 5, and its least $2\frac{1}{2}$ miles from east to west. Its extent in square miles may be about 33. It is bounded on the east, by Lochlomond; on the south and south-west, by the parishes of Bonhill and Row; on the west, by Row and Lochlong; and on the north, by Arrochar parish. If we include the lands of Bannachra, which formerly belonged to Row, but are now understood to belong to Luss *quoad sacra*, it is also conterminous with Cardross on the south. The eastern boundary is an irregular line running north and south towards the middle of Lochlomond. The southern boundary leaves the bank of that lake about three-quarters of a mile south from the influx of the Froon, and proceeding westward becomes coincident with the course of that stream, which separates it from Row. Then the Laran forms the limit from Inverlaran, where it enters the Froon, to the summit of Shannan Hill, where it has its source. It then runs irregularly along the ridge which overlooks the Froon on the north, and after leaving within Row, Stron of Glenfroon, Finnart Hill, and Stronmalenoch, it again takes a westerly direction, and reaches the shore of Lochlong to the north of Gortan. From Lochlong to Lochlomond, it is conterminous with Arrochar. The outline on the south and west is thus extremely irregular.

Topographical Appearances, &c.—By far the greatest part of the surface of this parish is mountainous, some of its mountains rising

to near 3000 feet above the level of the sea. The principal are, Ben Cornachantian, Corafuar, Craiginlenue, Aich, Dhu, &c. These are intersected everywhere by glens wildly picturesque. As we advance from the south-eastern boundary of the parish northward, the Froon, already referred to, first crosses our way. Glenfroon, well known in Scottish story as the scene of a bloody conflict, fought in 1603, between the clans of Colquhoun and MacGregor, is but partly situated within Luss. The Froon flows into Lochlomond, nearly opposite the southern end of Inch Murren, the most considerable and the southmost of its islands. Parallel to Glenfroon, on the north, and separated from it by a mountain range, already referred to, is Glenfinlass. The sources of the Luss and Finlass are not far from the upper extremity of this valley. The Luss diverges from it by taking a direction rather to the north of east. The streams of Finlass and Luss are about three miles apart at their termination in Lochlomond. Lastly, at the northern boundary is Glen-du-glass. At Inveruglas, or the mouth of the Duglas, is the ferry of Ruardinnan directly opposite, at the foot of Benlomond. All these valleys intersect the mountains in an easterly direction, and discharge their respective streamlets into Lochlomond.

The flat land, which is by far the smaller portion, lies in the south-east. It extends along the lake from the southern boundary to Ross-dhu, the seat of Sir James Colquhoun, Bart. A considerable part of this land is almost perfectly level, another part, gently undulating; the rest slopes with a more or less gentle acclivity, till it is lost in the bold, abrupt, or rugged ascent of the mountains.

From the village of Luss southwards, the lake near the bank is in general neither rocky nor very deep. Northward towards Inveruglas, it is much deeper, and the bank in many places is rocky. To the north of the village, the mountain rises with steep ascent from the very bank of the lake. The lake in general has a muddy bottom. From the southern boundary are a succession of headlands, called *Rosses*, along the flat district, projecting a small way into the lake. They are Nether Ross, Middle Ross, Ross-finlass, Ross-dhu and Ross Arden.

Islands.—The islands of Lochlomond included in the parish of Luss are, Inchlonaig, Inch-tavanach, Inchconachan, Inchmoan, Inch Galbraith, Inchfrieclan, and a few other very small islets. Inchlonaig, now occupied as Sir James Colquhoun's deer-park, is

remarkable for the great number of very old yews which are growing in it. It contains about 150 deer. It is inhabited by one family, who board persons that have been addicted to drinking. Inch-tavanach, or Monk's Island, about three-quarters of a mile long, lies not very distant from the west margin of the loch, between Ross-dhu and the village of Luss. It is steep and mostly covered with copse-wood. It is inhabited by one family, who farm part of it, and admit as boarders persons given to intoxication. The summit of the island is called Tom-na-clag, the *Bell Height* or *Crest*, because, according to tradition, the bell was here elevated, which the holy occupants of this island employed in summoning to prayers the inhabitants of the two parishes of Luss and Inchcailiach. Inchconachan or Colquhoun's Island lies beyond Inch-tavanach, and parallel to it on the north-east. It is not inhabited. Inchmoan or *Moss Island* is but little elevated above the surface of the lake. It lies to the south-east and south of the two last, and is of considerable extent. It supplies the villagers with peat for fuel, and is of little importance in other respects. Near this, on the south, is Inch Galbraith, occupied only by a few trees, and the ruins of an ancient castle, once the residence of a family, from whom it has received its name. Inchfriechlan, *shaggy* (that is, *fern*) *Island*, is a rock opposite the village of Luss. The other islets included in this parish are of no note whatever.

Lakes.—From what has been already said of the rivulets of Luss, it might be inferred that there is no deficiency of springs. Those proceeding from rocks generally of clay slate furnish, for the most part, limpid and pure water. There is no lake in this parish or adjoining to it except Loch Lomond, anciently called Lyncaledur (*i. e.* the *lake of the woody water*) in one of the Roman itineraries;—and this is the earliest mention of it. It did not receive its present name till the fourteenth century, when it was thus named from Ben Lomond. Lummon signifies a beacon in the British language, and occurs elsewhere in Scotland, as well as in Wales. Its previous name was the lake of Leven, so called from the smoothness of its waters. This lake being twenty-four miles long, extends along the east of this parish for about a third of its whole length. Its greatest breadth, which is nearly opposite Ross-dhu, is almost eight miles. From Luss parish northward, Arrochar extends round the one end of it, and Bonhill southwards round the other. Along the eastern bank, lies Buchanan from the boundary of Arrochar till it meets Kilmaronock at the influx of the Endrick,—which last

parish is again conterminous with Bonhill. The waters of this lake are particularly soft and wholesome, and are used for culinary purposes. The upper and narrower part of the lake is by far the deeper, and never freezes. South from Luss, it seldom exceeds 20 fathoms. This part freezes over only in long and severe frosts. In the beginning of 1838, the lake was traversed to and from Inchmurren on the ice, by horses and wheel carriages to either bank. The greatest depth of this lake is about 100 fathoms, and its average height above the sea level is 22 feet. After great floods in winter, it has been known to rise about 6 feet higher than after great droughts in summer. It is much higher now than once it was. Stepping-stones across the channel of the Falloch, at the north end of the lake, are now several feet under its surface after the greatest drought. Cambden describes an island as in his day existing in Camstraddan bay, with a house and orchard. Now only a heap of stones is to be seen when the water is low, said to mark the site of the ancient family residence of Colquhoun of Camstraddan. This lake, for beautiful and picturesque scenery, is not surpassed by any in Britain. Its beauties have long been so well known that they need not be particularly described. They may be surveyed with great advantage from the summit of Inchtavanach and Inchmurren, Strone hill near Luss, and the northern summit of Benbui. From the last the prospect is beautiful, varied, and extensive. To the north and north-east, stretches Lochlomond with its islands, and beyond it Benlomond, the hills of Buchanan and Strath Endrick; to the south-east, part of the vale of the Leven is seen and Dumbarton rock; to the south and west, the Frith of Clyde, with Greenock, Helensburgh, Rosneath, Dunoon, and the Argyleshire mountains; to north-west, the vale of the Froom throughout its whole length.

Lochlong, which bounds this parish for a short distance on the west, is a deep extensive arm of the sea, stretching from the Frith of Clyde northward between the counties of Dumbarton and Argyre. Luss can derive but little advantage, however, from its contiguity to Lochlong, as it is fenced on that side by a barrier of lofty and rugged mountains.

Geology.—The rocks of the flat south-easterly district are of the conglomerate or red sandstone formation. Clay-slate and the kindred varieties occupy the mountainous district. The line of separation of these two formations may be well traced in the beds of the rivers and mountain torrents. From near the pass of Bal-

maha, in Buchanan, it proceeds in a south-westerly direction. It crosses the Froon near the junction of the Laran with it, and passing above Ardincaple Castle, runs between Cairndow and Dunmore points, and in Rosneath over the hollow behind Campsail Bay. The dip of the strata is in general towards the south-east. The rocks of the clay-slate formation are often traversed by veins of quartz; crystals of cubical iron pyrites are also met with, as well as quartz abundantly disseminated in masses, throughout the same class of rocks. Roofing-slates of good quality are obtained in Camstraddan and at Luss. There are documents to prove the existence of the former quarry, more than four hundred years ago. A freestone quarry is also occasionally worked. The alluvial land generally consists of sand or gravel, or of peat-moss. There is good loam in some parts. The peat-moss, which is extensive, everywhere contains the remains of ancient wood. Birch and oak are the predominating species. Some brazen points of spears and antique iron helmets were found in the alluvion, near the Froon, at Dumfin. They came into the possession of Sir James Colquhoun about two years ago.

Botany.—The more remarkable plants are, *Isoetes lacustris*; *Subularia aquatica*; *Alisma ranunculoides*; *Vaccinium oxycoccus*; *Rubus chamæmorus*; *Lysimachia thyrsiflora*; *Agrimonia Eupatoria*; *Osmunda regalis*; *Collema Burgessii*, &c. The natural woods of this parish consist of oak, ash, yew, holly, rowan, birch, hazel, aspen, alder, crab, bird-cherry, wild-cherry, hawthorn and willows. The oak thrives only in dry ground; ashes abound near brooks, and by the bank of the lake. The yew is rarely met with except in the islands. The rowan often grows in elevated situations, and hollies are scattered through the woods. There are from 800 to 900 acres under natural wood, and now a great deal under plantation. The other indigenous plants are nearly the same as in other parts of the Highlands, in similar soils and situations.

II.—CIVIL HISTORY.

This parish was formerly of great extent, including the modern parish of Arrochar on the north, and the lands of Auchindennan, Cameron, Stuckroget, and Tullichewen, on the south; and the lands of Buchanan on the opposite side of the lake. Buchanan was disjoined in 1621, and Arrochar in 1658. The rest were annexed to Bonhill about 1650. But the lands of Caldanach,

Prestelloch, and Conglens, once belonging to the parish of Inchcailliach, are now annexed to the parish of Luss.

There are few events which have been deemed worthy of record connected with the early history of this parish. When Haco of Norway invaded Scotland in the year 1263, part of his fleet sailed up Loch Long to Artochar. The Norwegians having landed here, hauled their boats across the isthmus, embarked on Loch Lomond at Tarbet, sailed down the lake, slaughtered and plundered the inhabitants of Luss and the islands, which were then very populous, and were moreover crowded with people who had fled thither for security from all parts of the country. About the beginning of the twelfth century, Alwyn, the second Earl of Lennox, had granted a charter conferring the lands of Luss on Malduin, Dean of Lennox. His posterity, who were styled *de Luss*, possessed the estate, till the fourteenth century, when it passed to Colquhoun of Colquhoun by his having married the sole heiress. The principal part of the parish continued to be possessed by the direct descendants of these individuals in the male line, till about the beginning of the last century, when it again passed by marriage of the sole heiress to Grant of Grant, the ancestor of the present Sir James Colquhoun. Robert, a younger brother of Sir Humphrey Colquhoun, obtained a charter in 1395 of the lands of Camstraddan and Achingahan, and became the ancestor of the family of Camstraddan. The present Sir James Colquhoun's father purchased the estate of Camstraddan from the hereditary proprietor, and re-annexed it to the estate of Luss, and thus became proprietor of the whole parish, except the *quoad sacra* annexation of Bannachara.

Eminent Characters.—Sir John Colquhoun, grandson of that Sir John who was slain in Inchmurren by the islanders in 1440, deserves to be mentioned here. He was in 1474 made Lord High Chamberlain of Scotland, and Ambassador Extraordinary to the court of England. In 1477, he was made Governor of Dumbarton Castle, for life. Having acquitted himself in every station with fidelity and honour, he was killed by a cannon-ball at the siege of that fortress, on the 1st of May 1478.

Mr John M'Laurin, a very distinguished divine, brother to the celebrated mathematician of that name, was minister of Luss early in the last century, from which he was translated to Glasgow.

The late minister, Dr John Stuart, was equally esteemed for his excellent character, and his rare attainments in literature and

science. His labours in perfecting the Gaelic translation of the Scriptures, will embalm his memory in the hearts of the natives of the Highlands.

Parochial Registers.—The registers of baptisms and marriages from 1698 till 1735 have been very irregularly kept. From the last date till 1780, more care has been manifested. Since then, up to the present, they have been well kept, but are not voluminous.

Antiquities.—About a mile and a quarter south from Luss, there was a *cairn*, called *Carn-ma-cheasog*, from St Mackessog, a native of Lennox, who was a bishop and confessor, and suffered martyrdom at this place about A. D. 520. The church of Luss, in which he was buried, was dedicated to him, and he was long regarded as the tutelar saint of this parish. He was commemorated on the 10th of March. In the church-yard, there were discovered some stone coffins of considerable antiquity, but without any inscription. Each of them consisted of an entire stone, with a cavity cut out of it fit for holding a dead body at its full length, and a stone lid for covering it.*

At Dumfin, on the northern bank of the Froom, around the summit of a round hill, are traces of an ancient fortification. Tradition points to it as a residence and stronghold of Fingal, King of Morven. The name Dumfin is compounded of *Dun* and *Fin*, and denotes the *fort of Fin* or *Fingal*. The traditions of this country represent Fian M'Coul or Fingal and his associates as giants, of whom the most extravagant feats are related. For example, an enormously large stone or mass of rock is pointed out, which it is said, Fingal, standing on the top of Benbui, took upon his little finger to throw to the top of Shantran Hill, a distance of several miles, but that not being rightly balanced, it fell into a small brook mid-way between the two.

Modern Buildings.—Ross-dhu House is the only mansion deserving notice. It was built by the great-grandfather of the present proprietor, about sixty-five years ago. It is beautifully situated on the promontory of that name. A part of the walls of the more ancient edifice, as well as a roofless chapel still used as the family cemetery of the Lairds of Luss, situated hard by, add variety to the appearance of this beautiful spot.

At Little Dumfin, there is a mill for grinding corn; another in which wood is sawed and charcoal ground; a third for cutting log-wood for the dye-works on the river Leven. The stream of the

* There is a statue of St Mackessog, which formerly stood at Bandry, but is now in the family burying-ground of Sir James Colquhoun, at Ross-dhu.

the soil generally, occasioned by the agricultural improvements, which have to some extent found their way hither also, render a scarcity of provisions a rarer occurrence now than in former times. They are generally a contented people; yet it is believed, that a somewhat more general diffusion of capital would tend not only to increase their comfort and improve their condition, but to promote the improvement and productiveness of the land. They are remarkably kind and hospitable, and as there has been less shifting of population here than elsewhere, they continue much attached to their native soil, in which generally their forefathers have dwelt from time immemorial. They retain much of the manners, customs, virtues, and prejudices of the olden times. The great body of them are regular in attending on religious ordinances. Since the reduction of the duty on distilled spirits, illicit distillation has almost ceased to exist. Poaching is also in a great measure kept down.

IV.—INDUSTRY.

Agriculture.—Several hundred acres of the best arable land in the parish, being adjacent to the family residence of the proprietor, Sir James Colquhoun, have been laid out as pleasure-ground, and are either occupied with plantation, or used for pasture. As there has been no actual survey taken of the land for a long time, and from reluctance on the part of the parties who can give information, it would be next to impossible to ascertain the number of acres and the actual produce of the land, whether in cultivation or not. There can be no doubt that, by a judicious application of capital, a large portion of the marshy and mossy land in the flat district might become productive, and yield an ample return.

Rent.—The average rent of good arable land per acre may be stated at L. 2, the average rate of grazing per ox or cow, grazed at L. 2, 10s., and for each full-grown sheep for the year, supposed to be about 3s. 6d. on the hill pasture.

Wages, &c.—The ordinary labour of cultivation is generally performed by the farmer's own family and servants, who live at his house, and are hired half-yearly. The average hire of a full-grown man is L. 7, and of a woman, L. 3, 10s. per half year. Persons hired for harvest-labour receive, men, 2s. and women, 1s. 6d. per day, with victuals. Occasional labourers receive 2s. per day. The price of the various kinds of produce is regulated by the state of the Greenock and Glasgow markets. The expense of carriage renders coals very dear, as this commodity must be conveyed from

Glasgow or Ayr ; consequently, peat is much used as fuel. Agricultural produce finds a ready market in the villages on the Leven, in Helensburgh, especially during the summer, or in Greenock.

Tailors are often hired by the day, and receive from 1s. 8d. to 2s. besides victuals. A pair of strong shoes for a labouring man costs 9s. to 10s. for a woman, 7s. to 8s. The shoeing of a horse costs 3s. 8d. The price of a cart is L. 10, 10s. The wages of a journeyman shoemaker per day, are 2s. 6d. ; of a smith, 3s. ; of a wright, 3s. A good deal of the work required in all these species of handicraft is done by persons in Helensburgh.

Live Stock.—The prevailing breeds of sheep are, the south of Scotland black-faced sheep on the hill pasture, and occasionally the Cheviot breed on the low grounds. The Highland breed of cattle is grazed on the hilly pastures. The milch cows on the low grounds are generally of the cross breed between Highland and Ayrshire, and on the best of the lands, pure Ayrshire.

Agricultural Society.—An agricultural society has been established for several years among the tenantry on Sir James Colquhoun's estates, and prizes have been distributed annually to encourage improvements in the breeding of cattle, as well as in the cultivation of land. A considerable degree of emulation has thus been excited among all descriptions of farmers. Towards farther improvement, draining of land is much wanted in many places. There has been no embanking nor artificial irrigation ; but a good many acres, which are laid under the waters of the lake in winter, are under crops of grain in summer.

For many years, a large proportion of the tenants have had no written leases, and this must have operated to some extent as a check to improvement. But as they were never removed except from strong reasons, their circumstances were by no means so unfavourable as might be otherwise supposed. Although there are several commodious farm-buildings, yet generally they are not such as were to be desired, and such as, considering the facility of procuring materials, might have been expected.

Quarries.—The freestone quarry is worked only for buildings within the parish. The slates from Luss and Camstraddan quarries are not only conveyed by the lake to the various parishes surrounding it, but down the Leven to Dumbarton, Glasgow, Paisley, Port-Glasgow, and Greenock. To Helensburgh, Row, and the shores of the Gareloch, they are conveyed by land. There are about

fifty men employed in working them at present. They bring out many thousands annually. There are two varieties of them, the one light or grayish blue, the other dark blue. The last named bring the highest price in the market.

V.—PAROCHIAL ECONOMY.

The nearest market-town is Helensburgh. It is nine miles from the village of Luss, but is not three from the south-west extremity of the parish at Inverlaran. Although this rising town is entitled to the privilege of a weekly market every Thursday, it is only in summer that a regular demand for articles of country produce is kept up. But from this town to Greenock, there is only an additional distance of about four miles across the Clyde, which is readily passed at all seasons in the steam-boats.

Means of Communication.—The turnpike roads to Helensburgh and Dumbarton are excellent. The post road from Dumbarton along Loch Lomond to the Highlands, extends throughout the whole length of this parish. The road which branches from the one at Red House at the south end of the parish, and extends up through Glenfron, is within this parish for three miles, and the branch leading off to Helensburgh, for two and a-half. Again the road from Dumbarton to Arrochar by Helensburgh and Loch Long, passes along the narrow slip which extends to this arm of the sea. Altogether, there must be an extent of about fourteen miles of turnpike roads within the parish. The post-office is at the village of Luss, and there is a delivery of letters from Dumbarton and Inverary daily.

There are three bridges over the Froon, one for each of the roads above specified; and one over each of the rivers Finlas, Luss, and Douglas. Those on the main or Dumbarton road are very sufficient; the two on the Helensburgh and Glenfron branches are of an old construction, and rather narrow. The fences are generally either hedges or stone dikes; but the arable land cannot be considered as on the whole well enclosed. An excellent wall, built of stone and lime, extends for about three miles, along the east side of Dumbarton road, as a fence to the Ross-dhu pleasure grounds. It is built of freestone, and is finished with a cope of the same. The only direct water-carriage is by Loch Lomond. This lake renders the different districts around its extended margin easily accessible by boats of different descriptions; but although the river Leven is also navigable, it is only by very small vessels; so that communication this way is limited to the

towns along the banks of the Clyde. Various plans have been suggested, at different times, for supplying this defect. The deepening of the Leven, so as to reduce the surface of the lake to the level of the sea or nearly so, is one of these. However feasible this may have been eighty years ago, the vested rights of the proprietors of the public works on the Leven have long since caused all idea of it to be abandoned. Another plan suggested is to lead a canal along the vale of the Leven, from Loch Lomond to the Clyde. A third plan is to cut a canal across the isthmus from the head of Loch Long to Tarbet. It is feared that no plan such as these will be carried into effect, till the proprietors of the extensive estates, surrounding the lake, combine for the common interest, with greater zeal and harmony than they have hitherto manifested.

Ecclesiastical State.—The church is rather conveniently situated for the parish than otherwise. It is rather distant, indeed, from the southern district, in which the greatest part of the country population is concentrated; but, on the other hand, the most distant and least accessible part is the opposite or north-west quarter. The church of Arrochar is of much easier access than that of Luss to some of the families who are located there. The greatest distance which any parishioner has to travel in coming to church is eight miles. The distance from Inverlaran to the south-west extremity of the parish, is seven miles. The church was built in 1771, and is still in a good state of repair; it affords accommodation for 500 persons. The seats are all appropriated, and are paid for at the rate of 1s. per sitting, which goes to the parish fund. The manse was built about forty-four years ago, and is at present in need of repairs.

The glebe contains about nine arable acres, and from two to three under natural wood, and is generally considered a good glebe. The annual amount of stipend is 134 bolls oatmeal; 50 bolls bear or barley, and L. 50 in money. There is a process of augmentation at present depending. There is no church or chapel of any kind within the parish, except the parish church; neither is there any religious missionary or catechist. The church is generally well attended. All the parishioners belong to the Establishment, except three families who are connected with the Relief body. The average number of communicants is 360. The amount of collections at the church for religious and charitable purposes during the year is about L. 12.

Education.—There is one parish school and two others in the parish; one for the ordinary branches, the other for educating girls, supported partly by the family of Luss, and partly by the payments of the scholars. For many years, a salary was received from the Society for Propagating Christian Knowledge, by the teacher of the former of these two schools; but the regulations having been departed from, the salary was withdrawn. The salary paid to the teacher of the parochial school, which is situated at the village, is the maximum: that paid to the teacher of the other school for common education, is L. 15 yearly, and he has school fees besides. This school is situated at Moorland, four miles south from Luss. A comfortable dwelling-house has recently been built for the teacher, at the expense of Sir James Colquhoun, and the tenantry in the neighbourhood of the school. The mistress of the girls' school is paid L. 15 annually, but no fees. The branches taught in the parish school are, English, writing, accounts, Latin, French, &c. The teacher accommodates boys for board and education. In Moorland school, the same branches are taught, Latin and French being excepted. The girls in the third school, which is located nearly half-way between the other two, learn sewing, reading, and writing. The parish teacher has the legal accommodations: and his school fees amount to L. 15 a year. The people in general are alive to the importance of education. The inhabitants of the upper part of Glenduglas are too far from any of the schools of the parish to send their children to them. The number of families so situated is four,—the nearest of them being five miles and a-half from the parish school.

Library.—A library has existed in this parish for *many* years, and seems to have been established for the sole benefit of the incumbents of the parish, as the books (upwards of 100 in number,) are all old, and chiefly in Greek or Latin. A small circulating library (upwards of 80 volumes) was set on foot also some years ago, by the present incumbent, consisting chiefly of practical divinity.

Savings Bank.—A savings bank was established nine years ago, and although those for whose benefit it was intended, have not greatly profited by it,—yet it has been very useful to the respectable servants in the parish. Nearly L. 300 have been accumulated.

Poor and Parochial Funds.—The average number of poor receiving aid from the parish fund is 24; many of these receive small sums half yearly; the average sum allotted to each weekly pauper being 1s. 9d. The annual amount of contributions for

their relief is as follows, on an average for the last seven years : Collections in Church, L. 38, 11s. ; mortcloth dues, L. 2, 10s. ; proclamations of banns, L. 3, 10s. ; amount of seat rents, L. 2, 7s. 6d. ; interest of stock, L. 10, 16s. ; donations, &c. L. 12 ; total of contributions for poor, L. 76, 4s. 6d. There is no disposition among the poor to refrain from seeking parochial relief. They do not now appear to consider it so degrading as formerly.

Fairs.—There is one fair held within this parish, in the village of Luss, on the third Tuesday of August, for the sale of sheep and lambs.

Inns.—At Luss there is a large inn. There are, besides, six licensed public-houses within the parish. Their effect on the morals of the people, is decidedly unfavourable. Three may be considered as sufficient for all useful purposes.

June 1839.

PARISH OF KIRKINTILLOCH *

PRESBYTERY OF GLASGOW, SYNOD OF GLASGOW AND AYR.

THE REV. ADAM FORMAN, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE ancient name of the parish and district is *Caer-pen-tulach*, which, in the language of the Cambro-Britons, signifies a “ post or stronghold at the head or end of a ridge.” This is entirely in accordance with the topography of the town of Kirkintilloch, and no doubt alludes to the Peel or ancient warlike fort on the line of Roman wall near the present parish church. There is a place named *Kintulach*, which, in 1581, belonged to the abbacy of Dryburgh, and is also called *Ridgend* ; both are evidently from the same root, and both constituted part of the reversions of the Earldom of Lennox. The present parish of Cumbernauld formed part of the district of Kirkintilloch, till some time between the years 1507 and 1522, when the name of the whole district was changed to Lenzie, which was the name of the barony belonging to the Noble family of Fleemings, Earls of Wigton. But it

* Drawn up by Rev. William Patrick, author of “ A Description of the Plants of Lanarkshire,” &c. &c.

was not till 1659, when a new church was built for the accommodation of the eastern end of the parish at Cumbernauld, (*Cumarn'-ald*, i. e. the meeting or confluence of streams,) that both parishes settled down to their present forms, each retaining its modern name. The chapel of the Virgin Mary then became the parish church for the inhabitants of the western end, at Kirkintilloch, and is still in use.

Boundaries and Extent.—This parish and the parish of Cumbernauld, although both in the county of Dumbarton, lie quite detached from it, so that the western extremity of Kirkintilloch is about six miles distant from the south-east end of the main body of the county to which it belongs, the county of Lanark coming in on the south, and the county of Stirling on the north, and meeting between them. The portion so detached includes a district about 12 miles long from west to east, and from $4\frac{1}{2}$ to 2 miles broad. It contains $32\frac{1}{2}$ square miles, or about 20,800 English acres; a space nearly equal to that covered by the waters of Lochlomond. The parish of Kirkintilloch forms the western end of this district. From a point between Gallowhill and Boghead in the west, to Dalshannan in the east, it is 6 miles and 6 furlongs in length. The widest place, from Mollinburn in the south, to Auchinvole in the north, is 3 miles and 3 furlongs. It is bounded on the east, by the parish of Cumbernauld; on the north, by the parishes of Kilsyth and Campsie, in the county of Stirling; on the west, by the parish of Cadder; and on the south, by the parishes of Cadder and New Monkland, in the county of Lanark. It contains 8527 Scots acres, or 10,651 English acres, and about 17 square miles.

Topographical Appearances.—The parish constitutes a portion of the northern boundary of the great valley of the Forth and Clyde Canal, stretching from east to west, of considerable extent, and rising very little above the level of the Atlantic and German Oceans. It is cut off from the fertile districts of the Forth by the range of hills a little to the north, called the Campsie Fells, and from the vale of the Clyde on the south by the high lands of Monkland. The bottom of the valley seems at some ancient period to have been washed with a mighty flood, or rather with a continually flowing tide. The banks on the north are high and often abrupt; but on the south they are more undulating, and of no great elevation, consisting chiefly of trap ridges, with rich and extensive arable lands between. The face of the country, therefore,

rises to the south, and declines towards the north; still the slope is so gentle, that very little of it can be said to have a northern exposure. The trap ridges seldom attain any great altitude, except at Stron and Barhill on the east, where the elevated peak, and the abrupt precipitous crag, often assume an alpine appearance. The range of the Campsie Fells on the north, rising often to the height of 1500 feet, affords a friendly shelter from the biting winds of the north; so that the district, upon the whole, exhibits a happy combination of alpine wildness, and of pastoral simplicity; yet enjoying all the advantages of a rich and arable country.

Most of the farmers in the district, from necessity and interest, are great observers of the times and seasons, and many of them have notes, very accurately and copiously kept, of the state of the weather, particularly at the two most important epochs of the year, seed-time and harvest; not only during their own experience, but also during the lifetimes of their fathers and grandfathers. Subjoined are some of the principal of these observations in an abridged form. These rural annals extend as far back as the beginning of the eighteenth century, and relate chiefly to the seasons. *

* The seven ill-years, as they are called, seem to have ended about 1704. On the 27th November preceding, one of the most terrible storms ever known devastated a great part of England, and did much damage in Scotland. In 1709, there were three months of very severe frost, with heavy snows. 1712 was a wet season, with a great flood in harvest. 1714 was very dry; a great frost in 1716; 1723 remarkably dry, no rain till 26th October. 1725 very wet; snow remarkably deep in 1731 and 1736. However, from 1730 to 1740, the seasons were in general very favourable, only some shaking in 1739. The year 1738 was the year of the great hail which happened when all the crops were in ear. It commenced in Galloway, and skirted along the counties of Ayr and Lanark, did much damage in Renfrew and Dumbarton, and broke in a great waterspout in the Campsie Hills. This dreadful storm carried devastation with it wherever it went. One farmer out of all his crops had only three bear-heads left, which happened to be sheltered by a great mugwort bush. The severe frost of 1740 is still spoken of. It in reality commenced in December 1739, and continued nine weeks, or a hundred and three days; a very bad crop followed, with an early frost in harvest. It was in January 1739 that the windy Saturday happened, or exactly a hundred years before the dreadful hurricane of January 1839. An early and good crop in 1742, rendered memorable by the Cambuslang work; a great hail in May 1745. The preceding harvest was very wet; the crop greatly injured. The harvest of 1745 also very bad, great rains and heated stonks. From 1746 to 1749 all the crops were good, and meal cheap. 1750, a dry summer, a wet August, but a good harvest; 1751-52, medium seasons; meal 10½d. and 11d. per peck. 1753, light crop, early and dry. 1754, a good crop, preceded by a long and severe frost in winter. 1755, wet seed-time, bad crop, late harvest with frost. 1756, wet late harvest, with a light crop, much shaking; meal rose to 1s. 6d. per peck. 1757, rather dry and early, but corn yielded but little meal, which sold at 1s. per peck. 1758, remarkably good season and fine crop; meal 7½d. per peck. 1759-60-61, were medium seasons; meal low, but in 1761 it rose to 1s. per peck. 1762, snowed eleven days together, late seed-time, dry summer, much corn, fodder scanty. 1763, a frost, which lasted ninety four days, rest of the season favourable, with a tolerable crop; 1764, backward season, and crop rather below mediocrity; 1765, early season, but frost and much rain in harvest. 1766, good seed-time, wet summer, good harvest, corn good in quality. 1767, medium season and crop, first half of harvest

The following is the state of the winds for each month during that remarkable year 1799 :

good, latter half very wet. 1768, early crop, but light and deficient ; 1769, tolerable good crop. 1770, crop in good land excellent, high lands deficient, fodder plentiful. 1771, very bad crop, ill secured, and heated. 1772, rather late, and scarcely a medium. In the month of June in this year, hailstones of great size fell in many places, in some places it is said as large as nutmegs. 1773, a terrible storm in March, rest of the season rather favourable, a tolerable crop. 1774, dreadful storm, September 30, and again in December 5, 6, 7, which did much damage by sea and land ; altogether a wet late season, with a low average crop ; 1775, great storm October 19, and again in November, the rest of the season excellent, and prices low. 1776, medium season and crop. 1777, late season, and crop indifferent. 1778, much the same as last. 1779, a great frost, which lasted eighty-four days, the season otherwise good, with an early harvest and good crop. 1780, a good season, but not equal to the last. 1781, good season and crop, but much shaking. 1782, a severe bad season in May and June ; hailstones of immense size fell in some places ; frost in harvest, a complete failure in the crop. There are no distinct notes from this time till 1799, which was a very bad season, with a poor late crop ; meal 2s. per peck, potatoes 8d. the small peck, and hay 1s. 4d. per stone. At the end of the following year, 1800, oatmeal was 3s. per peck, pease-meal, 2s., potatoes, 10d. small peck, hay, 1s. 9d. per stone. There was a great failure of the crops all over Britain, attributed to the great drought of the summer. In 1801, there was the best seed-time in the memory of man—the year throughout was good, with a plentiful crop of every kind, and an early dry harvest. The first eight months of the year 1802 were the worst in remembrance ; the four last were fine ; a late but plentiful crop, and all well got in. There was plenty of grain on the acre, but it did not meal so well as last year ; beef 1s. per pound, mutton 9d., butter 1s. 5d., cheese 9d., eggs per dozen 1s. 3d., peck loaf 3s. 2d., oatmeal 1s. 3d., potatoes, a poor crop and watery, 1s. per peck. In 1803, a good crop, dry harvest, grain plentiful, oatmeal 1s. 4d. per peck. The last seven months of 1804 all good weather, with the best crop, full and ripe, and well got in, that occurred since 1801 ; oatmeal 1s. 5d. per peck. In 1805, meal at same price, a plentiful crop of every kind. In the harvest of 1806 there was a great drought, followed by a wet November and December, corn, beans, and potatoes were all got in in fine order. 1807, a poor crop, oatmeal 2s., hay 2s., pease, beans, and potatoes bad ; 1808, a fine crop, well got in ; potatoes, pease, and beans above an average, altogether a remarkably fine harvest. 1809, a good harvest, grain plentiful, but high priced ; oatmeal in June 2s. in July 1s. 10d. per peck. 1810, a beautiful warm sunny harvest ; no rain from 3d September till near the end of October, the best harvest and wheat seed-time remembered ; barometer above fair for six weeks together ; oatmeal 1s. 6d., potatoes 9d. 1811, a great comet appeared near Ursa Major on the 9th September, extraordinary rains, frost, and winds in spring and beginning of summer, a medium crop. 1812, crop not all housed till the beginning of September, plentiful but dear ; meal 2s. 4d. and potatoes 1s. per peck. 1813, a good harvest, and a most excellent return of all sorts of crops, meal 1s. 6d. potatoes 1s. per peck. 1814, a remarkably fine harvest, plenty of grain, but little straw, meal 1s. 5d. per peck, potatoes 9d. per peck of forty-two pounds. 1815, a plentiful harvest all safely housed, oatmeal 1s. 3d. per peck, potatoes 9d., beef and mutton per stone 10s. 6d., skim cheese 5d. and sweet milk cheese 9d. per pound. 1816 was an uncommonly cold wet year, no sunshine ; a poor crop of every kind over all Europe, wheat L. 3, 10s. per boll oats L. 2, barley L. 2, 10s., oatmeal 2s. per peck, quartern loaf 1s. 5d. 1817 was the worst crop ever known in the west of Scotland ; the month of August was particularly bad. 1818, a plentiful crop of every kind in Scotland, but a poor crop in the south-east of England, potatoes very plentiful, and of a fine quality ; harvest began in early places on the 10th of August ; new oats and barley in the Falkirk and Haddington markets on the 13th of August ; oatmeal 1s. 5d. and potatoes 1s. the peck. 1819, trees early in leaf, but destroyed by the frost early in June ; no equinoctial blast in autumn ; the longest set of dry warm weather in September since 1800 ; crop finished over all the country by the end of that month, very plentiful and well got in ; oatmeal 1s. 2d. per peck. The Radicals in great commotion, especially towards the latter end of the year. 1820, harvest begun, but not generally, by the end of August, and was very generally finished by the end of September. Upon the whole, a plentiful crop, and all safe. In November best beef 10s. 6d. per stone, oatmeal 17s. 6d. per boll, butter 1s. per pound, all very cheap.

	N.	S.	E.	W.	N.E.	N.W.	S.E.	S.W.
January,	1	10	1	9	2	3	1	4
February,	0	0	0	8	0	3	2	15
March,	1	0	0	8	1	8	4	9
April,	0	0	0	11	7	4	3	3
May,	0	0	0	17	4	6	0	4
June,	0	0	1	21	4	0	2	2
July,	0	0	0	9	0	0	3	19
August,	0	0	0	19	0	2	1	9
September,	0	2	1	7	1	2	8	10
October,	0	0	0	8	6	3	4	10
November,	0	0	0	17	0	6	1	16
December,	0	0	0	19	0	0	0	12
	2	12	3	155	25	36	29	108

Hydrography.—The streams in this district are neither large nor numerous. The water of Kelvin, which is the chief, rises near Orchard, in the parish of Kilsyth, and runs in a direction nearly due west, towards the Clyde, forming the boundary between the counties of Stirling and Dumbarton. Its course through these parishes is far from picturesque, and more resembles a great ditch, or one of the slow sluggish streams of the south, than the “jouking burnies,” or “rattling roaring torrents,” which sweep over their channelly or rocky beds in these northern latitudes. Before reaching the Clyde, however, near Glasgow, its stream expands, its banks become elevated, bold, wooded, and highly picturesque, and being studded here and there with elegant country seats, and smart villas, are altogether worthy of the beautiful ballad in their praise, entitled “Kelvin Grove,” so well known, and so deservedly popular in the west of Scotland. Near to Kirkintilloch the Kelvin is crossed by a bridge, and is about forty yards broad. The Luggie, a tributary of the Kelvin, is the next stream of importance. It suddenly bursts up in a large and vigorous spring in the midst of a morass, on the farm of Torbrax, in the parish of Cumbernauld. After entering this parish at Dalshannan, it forms the boundary between it and Lanarkshire till Barbeth, where it entirely enters the parish of Kirkintilloch, and runs by Duntiblae and Oxgang, and joins the Kelvin to the north-west of the town of Kirkintilloch. Throughout the greater part of its course, it keeps by the level grounds, and is, like the Kelvin, a slow muddy ditch-like stream, subject occasionally to great inundations. The banks

The notes from which I quote are not so distinct after this date. It is stated that the average of rain for seven years before 1788, which was a remarkably dry year, was 25 inches, whereas in 1788 it was only 14.5. On the 29th and 30th May 1809, there was the greatest fall of snow ever known at the season of the year. The snow was nearly a foot deep. There was also a great frost, the rivers frozen, and many trees broken down by the weight of the snow.

are mostly low, ragged and ungainly, but near Oxbang and Duntiblae, they are high, imposing, and finely wooded. The Buthland Burn rises at Garthkirk, winds in a romantic manner around the fine old turreted mansion-house of Bedlay, solacing the whole scene with its pleasing and perpetual murmurings, and finally loses itself in the Luggie at Oxbang. Another small streamlet, called the Bord Burn, rises near Croy-mill, crosses below the Forth and Clyde Canal at Shirva, and is soon after swallowed up in the Luggie. All the streams which flow into the Luggie are from the south, whilst those which flow into the Kelvin, with one exception, are from the north. This latter river is the trough of the waters which flow from the bordering counties of Lanark and Stirling. There is a small lake at Gartshore, named the Bord Loch, which covers about four acres of ground. It has some pike, and is frequented by wild ducks and teals. It seems to receive its chief supply of water from a copious spring in the centre, which in the severest frosts is seldom covered with a thick coat of ice. This arises from the spring-well temperature of the water, great part of which is seldom much below 50° of Fahrenheit. Accidents are accordingly said to have occurred here on the ice. There is a tradition of the loss of a great many lives on one occasion, by the ice giving way, when overloaded by curlers. The Forth and Clyde Canal, which forms the most important hydrographical feature of the district, will be mentioned in its proper place.

Geology and Mineralogy.—The district of Lenzie lies on the northern border of the great coal field of Lanarkshire, after all the main seams of the most valuable metals crop out, and where the different beds of limestone on which they rest come to the surface with their accompanying deposits of coal and ironstone. It is also connected on the east with the great carboniferous deposits, which stretch along both sides of the Forth, including on the south side of that river, the district as far east as Blackness, and from Avon Water to the Forth, and the whole range of coal country on the north of that river from Culross to Dollar, and eastward by Dunfermline, Auchterderran, Leven, Largo, Elie, St Monance, and near to St Andrews. Were a geological map of this part of Scotland to be produced, the district of Lenzie would probably be included in the range of these coal fields. It is in vain, however, to search here for any of the main seams of the great Lanarkshire basin, as they are all run out before they reach this locality. This great

district is hemmed in by the porphyritic rocks of the Ochil range on the north, continued in the Campsie hills to Dumbarton, which divide the red sandstone from the coal formation of the Forth and Clyde. Part of the parish of Kirkintilloch, with part of the adjoining parishes of Cumbernauld, Kilsyth, and Campsie, seem at some remote and unknown period to have formed the bottom and sides of a great inland sea or lake, which stretched in an easterly and westerly direction along the valley of the Forth and Clyde Canal. This great basin of water appears to have been studded with islands or inches, as they are sometimes called, the memorials of which are still preserved in the names of the places. Among the still existing chronometers of this sort, which have escaped the wasting influence of the hand of time, and still live as it were to speak and testify for themselves, we may mention Inchbreck and Inchbelly in this parish, and Inchterf, Inchwood, and Netherinch in the parishes of Campsie and Kilsyth. The whole of the tract in which these lost or *cidevant* islands, if I may so speak, occur, partakes considerably of the character of a lowland valley; but were it necessary absolutely to define its geognostic features, we would rather rank it among the broad flat-bottomed valleys which abound in many places in Scotland. They are less rugged and picturesque in their outlines than mountain vallies, and less extensive than lowland ones. Still this resembles the lowland valley, in so far that it appears to have been originally scooped out by the same natural agencies; and from a careful inspection of the whole, it seems as if a large body of water had passed over it rounding the inequalities, and acting on the masses of strata in proportion to their power of resistance. At the same time, the valley of the Forth and Clyde Canal, especially in so far as it is connected with this parish, has much of the character of a drained lake, or indicates a locality where the rivers or floods, not having had any great velocity, have had time to deposit a considerable quantity of sediment over a flat surface, in the middle of which many islands no doubt appeared. In the country to the north of this valley, and also considerably to the west, in the parishes of Old and New Kilpatrick, there is a continuity or identity of strata, accompanied with various alpine ranges, consisting of whin, chiefly diorite, resting on the lower members of the coal formation. The Campsie range, which borders on the parish of Kirkintilloch, immediately to the north, is of this description; which, although the giant range of these districts is, however, itself mimick-

ed or approximated by various smaller ridges to the south in the parishes of Kirkintilloch and Cumbernauld, which are of similar structure, run in the same easterly and westerly directions, and may all be ascribed to the same geological epoch. The shapes or general forms of these ridges are considerably modified by the currents of water which, at an early period, have apparently flowed between them, probably from east to west, which is indicated not only by the groovings and dressings on rocks, and the abrading effects of the liquid among the materials opposed to its passage, but is also rendered extremely probable by the natural lie of the whole district, and more especially by the fact, that the surface of the river Forth is about five feet lower than that of the river Clyde—a fact ascertained by the levels on the line of the Forth and Clyde Canal.*

The principal deposits of coal in the district of Lenzie are only such as are immediately connected with the carboniferous group of limestones, and all lie in *swilleys*, or small insulated patches, of very inconsiderable length and breadth. These small independent basins are generally of an oval shape, and evidently seem to have been once small lakes or marshes, the strata having been deposited on the bottoms and sides, taking the concave form, which, under such circumstances, we would naturally suppose them to assume. In all of these *swilleys*, the stratum of coal that is of considerable thickness at the base, becomes thinner, and gradually fines off towards the edges, and at last totally disappears. This fact proves that the present basin-shaped position of the strata was their original one; and that the basin, at the period when the coal was deposited, was a detached lake or marsh, and not a part of the bed of the sea. These coal beds are evidently of considerable antiquity, and must have preceded some considerable local convulsions of nature. This is indicated by the fact, that while the small coal-basins at Holland Hirst in the east, and at Shirva on the west, both respectively retain their original or native forms, that at Stron, which lies exactly between them, and on the same line running east and west, the coal has been up-heaved by a great mass of diorite whinstone, which forms a considerable hill, and the whole original basin has accordingly been reversed in its shape, or has become saddle-backed, resembling a cup or basin turned upside

* It is believed that the bed of the Forth has been raised 20 feet. This would give 25 feet of a fall.

down, or lying with its mouth undermost, and the bottom in the air. That this basin was originally of the same form as those at Holland Hirst and Shirva there can be no doubt. The whin-hill at Stron must therefore be of a more recent date, and probably the coal basins of which we are now to speak are of a date posterior to the causes which led to the formation of the great valley in which they are deposited.

The Shirva field, a little to the west of the Stron, is a small *cap* or *swilley*, thrown in and out again by two hitches or troubles, which run along the northern and southern boundaries of the coal basin, which is of an oval form, probably about a mile in length, and half a mile in breadth. The coal here is about six and a-half feet in thickness, is rather soft in its texture, and comes up to the day, as the miners term it, at a very acute angle. It is wrought upon the inclined plane system. About four feet above this coal, there is a two inch coal with a roofing of shale, upon which a four feet post of limestone rests, which is again succeeded by a roof of shale, which reaches to the surface. This limestone resembles that found at Claddens, near Glasgow. About five fathoms below the thick coal, there is another seam of coal thirteen inches in thickness, which is succeeded by a bed of sandstone twenty feet thick. No farther search has been made. This is, upon the whole, a very singular little patch of carboniferous matter, altogether very unlike any other found in the neighbourhood.

At Holland Hirst, in the parish of Cumbernauld, but only a little to the east of the Stron in this parish, there is another singular small independent basin of coal, which, for the sake of connexion, it may not be improper to describe. This field consists of two seams, the upper or main coal, 3 feet thick, and a thin seam of 18 inches. Like that of the Shirva, it forms an oval basin upwards of half a mile in breadth, and from the present workings at the engine at Arneybog eastward to the Red-burn, fully a mile in length. It is cut off from the Netherwood lime-fields by a hitch running east and west, which may be seen crossing the country a little above the Redburn Bridge, at Castlecairy. It is cut off from the Cumbernauld lime-field on the south by a large greenstone ridge, which runs by Craigmarloch, the back of Cumbernauld Inn, and the picturesque waterfall a little above the old house of Castlecairy. The coal here is thrown in from the north, which would seem to connect it with the Stirlingshire coal-fields. It was sup-

posed to extend considerably to the west, but this, as we shall presently see, has been proved not to be the case from recent borings. The three feet or main coal is three fathoms above the thin or eighteen inch seam, and the calm lime four feet thick, nine feet above the main coal. The thin coal is wrought long-wall, so that all the coal is wrought out. The main coal is wrought "stoop and room," but not so extensively as the former. The engine pit is $38\frac{1}{2}$ fathoms deep, fitted with an excellent engine of eleven horse power, adapted to draw both coals and water. This work as well as the extensive collieries at Banknock, on the opposite side of the canal, belong to the Honourable Admiral Fleming. The works at Shirva belong to Walter Ballantyne, Esq.

In a position almost exactly between these two small insulated basins of coal, and also on the south bank of the canal, is the singular conical coal-field of Stron or Barr-hill. The minerals here are the property of Captain Murray Gartshore, of Gartshore, and William Wallace, Esq. of Auchinvole. This field, as we have seen, is saddle-shaped. The prevailing rock in this locality is a felspatho-pyroxenic trap, which, as already stated, seems to have burst up at a period subsequent to the formation of the coal-field, carrying the coal, &c. along with it. This hill is in a peculiar range of country, namely, exactly in the direction of the anticlinal line, which alters the dip of the metals from east to west, and runs of course in the direction of the strike. If a line were drawn on the map of Scotland from north to south through this hill, it would be nearly the anticlinal line of a large portion of the district. It will pass on between the sources of the Endrick and Carron on the north, causing the one to run east, and the other west. In the south, the same line determines the courses of the numerous waters which run into the Tweed and the Clyde. The Clyde and the Forth alone, with daring impunity, boldly cross and sweep along this line, and at these crossings of the anticlinal line lie the principal coal-fields. The anticlinal line, which here produces the divergence of all the metals, runs up the face of the Barr-hill, by the Stron engine, so that all the metals to the east of that line dip to the east, and all the metals to the west dip to the west. The strike of the metals is due north and south. The dip of the coal-field at Shirva is accordingly to the west, while that at Holland Hirst is to the east. These speculations must be taken with some degree of allowance, but they will be found near the truth. There are two principal seams at Stron, as at Holland Hirst; but the

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thin coal is only from 14 to 16 inches thick. The thick or main coal is four feet thick, and lies about seven fathoms below the thin seam. A black band of ironstone lies about seven fathoms above the thin coal. There are besides, five other small and inferior bands of ironstone connected with the seams. The coal here is good for smithy purposes, and a great proportion of it is used on the spot in the making of coke. Mr Wallace has 24 coke-kilns at present in use, and Mr Gartshore 13. These are erected towards the summit of the Barr-hill, nigh to the remains of the Roman wall, and shine forth in a dark night like beacons to all the country round. Admiral Fleming has also extensive works of the same kind at Holland Hirst. About 32 cwt. of coals put into each of these kilns yields a ton of coke. The coals require at least two days to roast; but this depends much on the state of the atmosphere. In March 1834, when coke sold at 16s. 8d. per ton, the expense of working, with the profits, might thus be estimated: Coke per ton, worth 16s. 8d.; working the coal 32 cwt. to a ton of coke, 8s. 8d.; cost and keeping up of kilns and expense of charring, 2s. 6d. By subtracting the two latter sums, or 11s. 2d. from 16s. 8d., there is a clear profit of 5s. 6d. per ton for the landlord and tenant. The above works, including Holland Hirst, send annually to the Glasgow market, by the canal, about 2148 tons of coke.

The thin coal in these collieries is difficult to work. The colliers are paid about 2s. per cart, equal to 3s. 4d., and sometimes as high as 3s. 9d. per ton at the room faces. The main coal, on the other hand, is put out as low as 1s. 8d. per ton, carried to the pit bottom. The average price is 2s. 6d. per cart, equal to 4s. 2d. per ton. Great quantities of fish bones were discovered when digging the engine pit at Holland Hirst; but organic remains are not so common in these strata as in some others.

There are at least five distinct main posts of lime in this district, all apparently entering it from the south, showing it to be the bottom of the Lanarkshire fields; while its surface and principal mineral beds to the east are evidently connected with the carboniferous groups of the coal-fields of the River Forth. The uppermost post of lime occurs at Milncroft, in the parish of New Monkland, exactly on the confines of the district of Lenzie. The second post is the celebrated deposit in Cumbernauld, lying on each side of a deep and romantic ravine, and forming by far the best lime for all purposes in this part of the country. The third post

is the calm-limestone found in the pit at Holland Hirst. The fourth post is the underwood lime thrown out from the Holland Hirst coal by the hitch above alluded to. The fifth post occurs at Shirva. It is the third post or calm-limestone which chiefly runs throughout the parish of Kirkintilloch. This is a very extensive deposit, and, with some of the accompanying upper and lower limestones, runs along the whole of the level tract by Cumbernauld and Bedlay to Glasgow, along the valley of the Forth and Clyde Canal, in this part of the country, and stretches also along the range of the Campsie Fells, where it is in some places 50 or 60 feet in thickness. It is a hard dark-blue lime with few organic remains, and yields but little effervescence with acids. It is well fitted for building purposes, and for smelting iron, but is little used by the agriculturist. A fine section of this limestone is cut through at the viaduct bridge on the Kirkintilloch railway near Bedlay. The Bedlay lime, which yields large supplies to the Monkland iron-works, is of this post.

The ironstone found at Stron belongs to an entirely different group from that found near Airdrie. In the Monklands, the upper black band is found about 25 fathoms above the ell-coal, and Mushet's black band about 15 or 16 fathoms below the splint coal; but all these seams are totally run out before they reach this quarter. The black band of ironstone, however, on the Barr-hill, seems of excellent quality, and may yet be wrought to great advantage. The following journal of a bore at Stron will afford some idea of the order and succession of metals.

1. Bore at Stron.

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Soft brown sand,	7	0	Soft white rock,	4	6
Blue-till,	2	8	Grey fakes in beds,	7	10
Ironstone band,	0	6	Black blaes,	20	5
Dark fakes mixed with blaes,	7	6	Hard black fakes,	3	10
Rock in beds,	7	0	Black blaes,	0	4
Blaes,	0	4	Ironstone band,	0	4
Hard white rock,	5	2	Black blaes mixed with fakes,	3	2
Black blaes,	14	9	Black fakes,	5	9
Ironstone band,	0	3	Blaes,	0	3
Very black blaize,	1	3½	Ironstone band,	1	0
Ironstone band,	0	2	Black blaes,	1	0
Black blaes,	3	7½	Hard blaes,	6	9
Grey fakes,	6	9	Ironstone band,	0	4
Hard fakes,	4	9			
Hard white rock,	2	4			
Very hard rock,	2	2			
				183	6

The depth here is upwards of 22 fathoms, in which there occur six distinct bands of ironstone, many of them very thin, averaging

upon the whole about 2 feet 9 inches in thickness. The 8-inch seam is the best. The coal does not occur in this bore, which was made in the bed of the lake-like valley to the north of the canal. The 7-feet of soft brown sand lying upon blue till has every appearance of aquatic origin. The coal is found on the south side of the canal, to the east and west of this bore, as appears from the following journal, down only to the first workable coal.

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Blue till mixed with freestone,	19	6	Fire coal of the smithy kind,	2	9
Grey fakes,	2	0	Rock,	0	4
Blaes,	0	6			
Rock in beds,	8	0		34	10
Dark-grey fakes,	1	9			

In this journal we have the blue-till on which the soft brown sand in the valley seems to rest; but here it is mixed with shattered fragments of freestone and other rocks, striking memorials, we may imagine, of the destructive effects produced by the eruption of the greenstone rocks from below.

It was long suspected that coal might be found to the west of Holland Hirst, or between that colliery and the colliery at Stron. The experiment was lately made, but proved a failure. The following journal, however, has an additional interest, as having been put down in the ditch of the Roman wall or Graham's dike, on Westerwood farm. At the first breaking of the soil, a nondescript sort of earth was found, containing the debris of many substances, which the borers, for want of a better name, have termed surface. The bore failed in its chief object, the discovery of coal. It is as follows:—

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Surface,	1	3	Freestone,	2	2
Freestone,	8	0	Dark-grey fakes,	2	2
Dark fakes,	9	0	Dark blaes,	0	2
Blaes,	0	4	Hard kingle,	0	7
Hard rock,	0	2			
Dark fakes,	0	1		26	1

Another bore was put down near Wyndford Loch, to the depth of upwards of 33 fathoms. It consisted almost entirely of repeated layers of hard faky matter, or a mixture of freestone and shale, with two seams of coal of a foul coarse quality, about a foot each in thickness, and a coarse limestone of three inches. In one place, on the valley of the canal, after a bore of two fathoms, they were stopped by gravel.

These bores are all on the east side of the parish. We will now examine the west side where it borders with Cadder. We have seen that the calm limestone is the most extensive, and most re-

markable of the stratified rocks in this district. It is found in the pits at Holland Hirst, and also at Woodmill, Bedlay, and all along by Garnkirk, Huggenfield, Robroyston, and Cathcart. Near the Kirkintilloch railway, at Bedlay, it is found in great perfection. It is generally in two plies, separated by blaes. The following journal will afford some idea of the accompanying metals.

	<i>Ft.</i>	<i>In.</i>		<i>Ft.</i>	<i>In.</i>
Blue limestone,	2	0	Hard grey sandstone,	3	4
Shale,	1	3	Light hard sandstone,	3	4
Blue limestone,	3	0	Kingle,	9	5
Dark blaes,	1	2	Hard slaty sandstone,	13	4
Freestone plies and blaes,	9	7	Dark fire-clay & slaty sandstone,	21	9
Coal,	0	8	Dark shale,	11	11
Dark hard fakes,	4	7	Dark fire-clay with ironstone		
Slaty sandstone,	12	1	bolls,	36	7
Coal,	1	4	Dark hardstone,	0	6½
Slaty sandstone,	8	5	Dark freestone and shale,	0	10½
Hard grey sandstone,	11	0	Coal,	0	6
Dark freestone plies,	11	0	Dark freestone and shale,	11	4
Dark fire clay,	5	3	Coal,	2	6
Light sandstone,	2	8	Dark-grey pavement,	0	2

Were I to compare the limestones on the north of the great Lanarkshire basin, with those on its south-western boundaries, I would point out the Calderside lime between the parishes of Blantyre and East Kilbride, as corresponding with Millcroft lime, the Auchintibber as corresponding with the Cumbernauld, but of inferior quality, and the limestones to the west of Kilbride as corresponding with the Netherwood lime. There is nothing equivalent to the calm limestone on the south-west of the county of Lanark. Although this district, therefore, properly speaking, lies at the bottom of the Lanarkshire coal-fields, still it is connected with other fields to the east, particularly with the Falkirk coal-fields, which seems to be cut off from the fields still farther to the east, by traps, as at Bowden and Cockleroy, which rise out from below it. Probably the whole district may here be viewed as one of denudation, which has been cleared of all the upper strata, and finally cleared of the waters which overwhelmed it, by the upheaving of the Campsie and other traps with which it abounds.

The prices of boring in this district, where the metals are seldom at any great depth, are as follows :

First 5 fathoms at 5s. per fathom,				L. 1	5	0
Second do. at 10s. do.				2	10	0
Third do. at 15s. do.				3	15	0
Fourth do. at 20s. do.				5	0	0
Fifth do. at 25s. do.				6	5	0
Sixth do. at 30s. do.				7	10	0

Total 30 fathoms cost . . . L. 50 10 0

The following will afford an idea of the expense of shanking and mounting a pit on a limited scale in this quarter.

Five fathoms shanking, ...	L. 19 0 0
A windlas.	1 10 0
A rope and chain, ...	2 0 0
Five fathoms of pipes for pumping water, ...	4 10 0

Total for five fathoms, ...	L. 27 0 0
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The following is the average annual rental of the minerals in the parish of Kirkintilloch.

Barr-hill colliery, Mr Gartshore, let to Marshall and Wallace 1834, ...	L. 225 0 0
Stron, Mr Wallace, ...	300 0 0
Shirva colliery, Mr Ballantyne, ...	200 0 0
Orchardtown Limework, Mr Sharp, let to A. Baird, 1834, ...	50 0 0
1000 Tons of coke at 16s. per ton, ...	1600 0 0

Total rental per annum for minerals, ...	L. 2575 0 0
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The above is only an estimated rental, taken from the heritors' books, with one exception. Probably the real value is greater.

The trap rocks in this district are often very remarkable. Near Smithston, by the road side, there is a greenstone in which the rock assumes a columnar form. There is a singular ridge of dioritic whinstone at Mollinsburn, through which the new Kirkintilloch road is cut. It runs east and west, and rises up so abruptly as to resemble a great quartern loaf lying on a table. The place where the above road passes, seems like a piece cut out of the loaf.

As to the soils of this district, they are not generally so heavy as farther south; they do not so decidedly incline to clay, and are upon the whole more *grassy*. In the genuine coal-fields, grass is not the favourite herb, but various species of ranunculus, yarrow, daisies, and other insignificant weeds are very prevalent. The bottom of the valley of the great canal is nearly all transported soil. Near Auchinvole, and in several other places, there are beds of water-formed sand of considerable thickness. The ground along the southern part of the Kelvin is of a deep marshy nature, and is often overflowed by the river, particularly near to the junction of the Luggie and Kelvin. The soil of a small tract to the north-east angle is of a light reddish colour, upon a whinstone and gravelly bottom. Around the town of Kirkintilloch, the soil is a light black loam, 16 or 18 inches deep, on a reddish tilly bottom. A strong natural clay prevails throughout the southern and eastern parts of the parish, where it comes more immediately into contact with the genuine coal measures. Tracts of moss, affording a black peat earth, are interspersed, here and there, through-

out the whole district. The following is nearly the amount of peat moss in the parish.

Drum Moss,	-	-	-	-	40 acres.
Mossfinnin and Bedcow,	-	-	-	-	40
Barbeth,	-	-	-	-	12
Muirside Moss,	-	-	-	-	12
Patches of moss elsewhere,	-	-	-	-	30

184 acres.

Zoology.—At Cumbernauld, at the east end of the district of Lenzie, an ancient breed of white cattle were kept for many ages, after they had disappeared from every other place in Scotland. We have a direct testimony to this fact, from a variety of celebrated and reputable authors, from the earliest periods to the present times. As this district, at one time, belonged to the Cummins, it is probable, that the same breed were also at Hamilton, as the estate of Cadzow also belonged to the same family. They have been long extirpated from Cumbernauld. There is, however, one of the *feræ naturæ* which still keeps its ground there, the nimble and elegant *Cervus capreolus*, or roe. It is very frequent in the woods at Cumbernauld and Castlecairy, and has of late been hunted by hounds trained for the purpose. When attacked, it is very shy of leaving its cover, but when driven to the open field, it does not run swiftly, but seems to leap or bound like a calf, and unless another place of shelter be near, is soon overheated and overtaken. The *Sciurus vulgaris*, or common squirrel, abounds in the woods. The *Lepus cuniculus*, or wild rabbit, is more common in the woods than formerly, and has probably been introduced by the gentlemen of the chace to feed foxes. Better feed them on rabbits than on their tenants' poultry. Along the banks of the canal, in particular, the *Arvicola aquatica*, or water-vole, and *Sorex fodiens*, or water-shrew, are very common. Other quadrupeds common to this part of Scotland are also found. Among the birds of prey, the *Buteo æruginosus*, or gled, and the *Buteo nisus*, or sparrow-hawk, are the most destructive. In the last Statistical Account of the parish, drawn up by the Rev. William Dunn, the author states, that "the advantage resulting from our late improvements is attended with one circumstance of which we have reason to complain, which is this, that the use of lime upon our lands, the filth which is conveyed into our rivers, from the coal-works in the neighbourhood, and the machinery which have been erected, have already rendered a salmon-fishery, which was considerable, very insignificant; and indeed there is too much reason to apprehend, that the fish in our

rivers will be almost totally exterminated by the joint effects of these different sources of destruction." The remark is true with regard to the salmon-fishery, which was at one time important enough, to be expressly retained by the family of Cumbernauld, when they dispensed with the rest of their property in this neighbourhood. That the number of fish has generally decreased is also very probable. The chief kinds now found are the following ;—the reader, however, will remark, that I am not quite satisfied in my mind as to the *Salmo albus*.

Salmo salar, common salmon

—— *fario*, common trout

—— *albus*, whiteling or white trout

Esox lucius, common pike

Leuciscus rutelus, roach, *Scotticè*, braize

—— *phoxinus*, minnow

Perca fluviatilis, common perch

Botany.—The only thing worthy of remark in the botany of this district is the immense quantity of *Lothyrus salicaria*, or purple-spotted loosestrife, which fringes the southern bank of the canal, and in the months of July and August, when in full blossom, exhibits a rich display of purple spikes of flowers, and altogether presents to the eye a peculiarly gay and captivating appearance. The *Iris pseudacorus*, or yellow water iris, and the *Menyanthes trifoliata*, also contribute to swell the more than usual exuberance of verdure. In this entangled mass of foliage there may be occasionally detected a few specimens of that rare and beautiful plant *Lysimachia thyrsiflora*, or tufted loosestrife, and also some rare *Cariaces*, and a variety of interesting aquatic plants. The *Arenaria verna*, or vernal sandwort, rather a rare plant, occurs in dry gravelly places between Cadder and Kirkintilloch. A variegated variety of the *Urtica urens*, or common nettle, sometimes occurs. The *Sambucus ebulus* abounds in a field on the northern precincts of the parish, near the mansion-house of Glorat. The *Valeriana officinalis* is more common here than in Lanarkshire.

The principal plantations are on the estate of Gartshore. They extend to upwards of 326 acres, and are finely and very imposingly laid off. The trees chiefly planted are larch, spruce, and Scotch fir ; but little hard-wood. The principal mansion-houses in the parish are well ornamented with trees, and there are some pretty extensive plantations, as at Boghead, but not so important as to require to be specified.

II.—CIVIL HISTORY.

This district must have been of great importance so far back as the time of the Romans, as it was here that they had one of their principal forts. In the year 1184, the town of Kirkintilloch was erected into a burgh of barony by William the Lion. Before the

year 1195, William, the son of Thorald, who held the manor of Kirkintilloch, granted to the monks of Cambuskenneth the church of Kirkintilloch, with half a carucate of land. William Cummin, afterwards Earl of Buchan, held the manor of Kirkintilloch in 1201. The estates afterwards came into the hands of the Noble family of Fleming. There is in the charter-room at Cumbernauld an ancient charter from Alexander II., dated about 1226. In the " *Registrum Magni Sigilli Regum Scotorum*," published by order of Government, there is a charter to Malcolm Fleming from King Robert, conveying " *totam baroniam de Kirkintolach que fuit quondam Johnis Comyn*." In the reign of Robert II. there is a charter of confirmation, dated Kinghorn, 20th July, the fourth year of his reign. This had reference to the claim of William Boyd, son of Thomas Boyd, the former proprietor of the barony of Lygne. The same monarch, by a charter dated Arnele, 13th May, in the third year of his reign, grants " *Villa de Kerkentuloch to Gilbert Kennedy, grandson of Malcolm Fleming*." In 1526, James V. "ratifies and approves the charter of new infeftment maid by our sovereign Lord to Malcolm Lord Flemyng, making the touns of Biggar and Kerkentuloch, burghis of barony, with the mercat dais, in all punctis, with arteklis, after the form and tenor of the said charter of infeftment maid thereupon." In 1672, William Earl of Wigtown built a bridge of three arches over the Luggie, the old bridge being quite ruinous. The building of this new bridge is said to be a "maist necessary and useful bridge for the saife passage of all persons who travel from Edenbro and Stirling to Glasgow and Dumbarton, being situated on the highway leading to and fro these touns." The Earl, in consideration of the expenses he was at in building the new bridge, was permitted by Act of Parliament, for the space of five years after the opening of the same, to exact an imposition of four pennies Scots for every ox, horse, or cow, four pennies for every ten sheep, and eight pennies for every loadened cart. This district formerly belonged to Stirlingshire. Some time between 1507 and 1522, the name of the whole was changed from Kerkentulach to Lenzie. In 1621, an attempt was made to get a new church erected in the middle of the parish, but without success. In 1659, the parishes of Kirkintilloch and Cumbernauld were finally separated. A new church was built at the east end for the new parish, and the chapel of the Virgin Mary, built 1644, became the parish church of Kirkintilloch, as at present.

In 1745, the Highlanders descended directly upon this part of Scotland from the Craw road along the western limb of the Campsie range. A stupid and cruel-minded man fired from a barn bole, and killed one of the rebels as they passed through the town of Kirkintilloch. This wanton and unwarrantable action led to serious results to the inhabitants of the burgh. They were ordered to give up the murderer to justice, but, on being unable to do so, a heavy fine was imposed upon them. On the return of the Highland host northwards, the town was again put into a great panic, it being reported that they were to come that way, and meant to burn it. An aged person tells me that his father was an eye-witness of the confusion which prevailed on the approach of the much dreaded host. People were flying in all directions, in the utmost despair, taking with them what they valued most; and among the rest, he particularly remarked an infirm old man making his escape with his cow and a chaff-bed thrown over her back. But a more dreadful, and not less dreaded foe, was destined to invade the peaceful burgh of Kirkintilloch well nigh to a century after. This was no less than that appalling scourge, the Asiatic cholera, which visited this place in 1832, after having visited Haddington and Musselburgh. Kirkintilloch was the first station it touched at in the west of Scotland, and if the local agitation was great, the terror of the whole country around was, if possible, still greater. The total number of cases was 96; deaths, 36; cures, 60. Of the 36 fatal cases, 10 were children, 14 females, and 12 full-grown males.

Antiquities.—The castle of Kirkintilloch, on the Kelvin, appears to have been a place of considerable strength, in the end of the thirteenth century, when it belonged to John Comyn, who lost it and the barony of Kirkintilloch, by forfeiture, on the accession of Robert Bruce, when it was given to Sir Robert de Fleeming, ancestor of the Honourable Admiral Fleeming, in consideration of the eminent services rendered in the course of the long and bloody contest, which that monarch carried on with the English, for the possession of the Scottish throne. No traces of this ancient fortress now remain. In the northern side of the parish, there is an ancient square tower, known by the name of the tower of Banheath. This was in ancient times a stronghold of the Boyds, Earls of Kilmarnock, whose armorial bearings are still blazoned above the door. It was at one period surrounded with woods, and had a deer park. In the memory of persons now liv-

ing, the tower was covered with a leaden roof, and was surrounded by a ditch. It is still pretty entire, but in a state of complete disrepair.

But by far the greatest object of curiosity in the district, either to the antiquary, or general reader or scholar, is the remains of the ancient Roman wall, with its peels or forts. It appears that no less than six walls were built along this narrow neck of land by the Romans. The first was built by Julius Agricola, the first of the Romans who penetrated into Caledonia, about A. D. 81. A second wall was built between the Forth and Clyde by Lollius Urbicus about A. D. 138, under the Emperor Antoninus. It was built of turf, and fortified by castles of stone-work. Capitolinus expressly mentions this wall, and memorials of it are preserved in the inscriptions both of the Emperor and General. Carausius, who usurped the empire in Britain towards the end of the third century, according to Rennius, (cap. 19, Edit. Gale,) built or repaired the wall between the Clyde and Forth, about A. D. 289. The marches of the empire were again repaired under the Emperor Valentinian, by his general Theodosius, in A. D. 367, when the province of Valentia was formed. The marches of the empire, or the above wall, was also repaired by Stilicho about A. D. 398. When the Romans finally left this part of the country they caused the Britons first to repair the wall, which was of turf, and of little use. Bede says it was situated between the Forth and Clyde, and begun at a place called Peneltun in Saxon, and Penualin Pictish, (Nenricus calls it *Cenual*, perhaps Kennal,) about two miles distant from Abercorn, and ended towards the west at Alchuyd or Dumbarton, on the Frith of Clyde. The same authority says it was very broad, and very high, and that the remains of it were to his time. The wall of A. D. 426 was between the Tine and Solway.

It is the remains of the wall described by Bede which are now to be seen. It enters the parish of Kirkintilloch at Barr; crosses Barr-hill, and then the canal at Shirva, runs in a westerly direction near the south bank of the Kelvin, passes the town of Kirkintilloch, at the back of the parish church, and leaves the parish near Mr Thomson's of Belfield. The whole distance is about six miles. During that brief space, there have been no less than three distinct forts or castles, which are on high and naturally strong positions, well-fitted to see to a great distance around, and to exercise an extensive *surveillance* not only over the pieces of wall

committed to their keeping, but also over the whole country around. The first of these posts upon the east side stands upon the top of the Barr-hill, a situation so elevated as to command a view of almost the whole length of the wall from east to west; or over a space of country upwards of thirty-two miles from sea to sea. The fort is a square area of 150 yards. About the time the last statistical report of the parish was written, some vaults belonging to it were discovered. They were all entire, covered above with flat bricks, and floored with a mixture of lime, and black and white gravel, with sand, as if from the sea-shore, very unlike any that is now to be found in this neighbourhood. The next of these forts, proceeding westward, is situated three miles distant, at the village of Auchendowie. It is of an oblong rectangular figure, extending 150 yards one way, and 70 another. This fort is now sadly mutilated, and can scarcely be traced. The Forth and Clyde Canal is cut through it. Two miles onward in the same direction is the fort or peel, as it is called by way of distinction. It is situated on a piece of rising ground at the west end of the town of Kirkintilloch. The ditches and forms of the fortifications are still pretty distinct, except on the west side, where they have been lately levelled and turned into a kail-yard. The fort is of an oblong rectangular form, 90 yards in length, and 80 in breadth. It is singular in being situated on the north side of the wall, whereas all the other forts stand upon the south side. From the history of the place subsequent to the time of the Romans, there is more than ground for suspicion that this was one of the strongholds of the Comyns, during the time of the disturbances with the English. Certainly the traces of the remains of the fortifications are much fresher here than at any of the neighbouring stations; and the reason probably is that they are newer, and may therefore be referred to comparatively modern times. That this was once a Roman fort, there can be no doubt; the only question is, as to the remains of the ditches and redoubts now visible. A piece of lead, weighing upwards of 11 stones, of the shape of a cast of pig-iron, was lately found. It has been sawn into two pieces. There are some rude marks on it resembling the Roman numerals for two hundred. Stones bearing inscriptions have also been dug up among the ruins of all these forts. Many of these are in the Hunterian Museum at Glasgow. Mr Dunn, the last minister of Kirkintilloch, mentions one with the words *Legio Secunda Augusta Fecit*. The ditch is in a pretty entire state in many places on the

property of the Honourable Admiral Fleeming, between Castle-cairey and the Barr-hill, and also in this parish. It is sometimes of considerable depth, and twenty or thirty yards broad, covered with a thick coating of verdure. The bottom of it is everywhere pervaded with masses or rather fragments of broken stones. It is here uniformly called Graeme's Dike.

III.—POPULATION.

In 1751, the Rev. Dr Erskine, at that time minister of Kirkintilloch, afterwards of Edinburgh, found the population to be as follows :

Families in the town,	195
in the country,	226
Persons in the town above eight years of age,	575
in the country, do. do.	796

The addition of the Seceders and Quakers, at that time in the parish, made up 1400 examinable persons, which, being taken at one-half of the population, will give 2800 of a population. This is Mr Dunn's data, deducible from Dr Erskine's returns, but it is erroneous. Dr Erskine gives the total families in town and country at 421 ; and if we allow four to a family, which is a fair enough calculation for those times, it will give a total population of 1664. The return of souls to Dr Webster in 1755 was 1696, so that the total increase in four years was only 32 souls. The number of inhabitants in the parish in 1791 was as follows :

In the town,	1536
In the country,	1103
Total,	2639

This shews an increase in forty years of 943.

Population in 1801,	3210
1811,	3740
1821,	4580
1828,	5518
1831,	5868

The increase in ten years, from 1791 to 1801, is 570 ; from 1801 to 1811, the next ten years, 530 ; from this last period till 1821, it is 840 ; 938 for seven years, from 1821 to 1828 ; and for three years from 1828 to 1831, the increase was 370 ; so that in the ten years before 1831 the total increase was 1308. The gross average *annual* increase for the whole period is rather more than 81 per annum. The full particulars of the census of 1828 are in the hands of Mr John Moffat, merchant in Kirkintilloch. The following are its general results.

	Above 12 years of age.	Below 12 years of age.	Total.
Landward,	928	418	1346
Burgh,	2755	1417	4172
Total,	3683	1835	5518

The increase per annum at this period, Mr Moffat supposes to be about 120. The result of the Government census of 1831 is as follows :

Males,	3006
Females,	2882
Total,	5888

The following are the general outlines of the census for the purposes of the Church Commission in 1836.

Districts.	No. of souls.	Above 12.
1. Barr,	328	223
2. Shirva,	202	157
3. Eastside,	555	441
4. Hight Street, north side,	676	436
5. High Street, south side,	163	102
6. Hillhead,	673	455
7. Waterside,	353	245
8. Gartshore,	284	206
9. Middlemuir,	92	63
10. Cowgate,	1362	1061
11. Townhead,	1222	802
Omitted in Townhead,	20	15
12. Gallowhill,	116	78
13. Belfield, &c.	110	56
	6156	4330

The lists are uncommonly accurately taken down, and neatly and carefully assorted ; but it is probable some of those who were entrusted with them have got bewildered in one department, namely, in ascertaining the numbers above twelve years of age, and those above seven. The proportion of those above twelve years of age is probably here too great. The average number of proclamations and baptisms in the *parish church* for the last eight years are as follows, (premising in the meantime that by the Church Commission returns, there are in the parish 18 bachelors, heads of families, 91 old maids, and 80 widows.)

Years.	Proclamations.	Baptisms.
1830,	50	107
1831,	60	99
1832,	41	120
1833,	44	83
1834,	44	104
1835,	61	107
1836,	62	105
1837,	42	107
	404	33

The proclamations, as here given, are at the rate of one marriage to about every 113 individuals, which is about the usual average in this quarter of Scotland, sometimes a little more, and sometimes a little less. In Hamilton it is 117, and in England generally 120. There is one baptism to every 60 persons, which is about twice too much : the true number is probably about 30. According to this computation, the total number of baptisms in the parish, among Churchmen and Dissenters, will be about 1600 or upwards. The deaths, as far as can be ascertained, are about one to 120. Members of families, 1114 ; inhabited houses, 615 ; houses, uninhabited or building, 1. Illegitimate births about 7 per annum.

State of Landed Property.—In the beginning of the fourteenth century, the whole parish, excepting the burgh lands of Kirkintilloch, and the barony of Western Gartshore, (which has for many ages been possessed by that ancient and respectable family, Gartshore of Gartshore,) was the entire property of the Noble family of Flemings, Earls of Wigton. Lord Elphinstone, in 1735, married Clementina, the only daughter and heiress of John, the last Earl, at whose death in 1778, the male line of that house became extinct. Lady Clementina Fleming lived till 1799, when she died at the advanced age of eighty. The Honourable Admiral Fleming, second son of John, eleventh Lord Elphinstone, is now the heir-general to the whole Wigton estates. The last of the property in this parish belonging to the family was sold off in 1757, but they still retain the feu-duties, and some other casualties of feudal superiority. Admiral Fleming has held some of the highest appointments in the British navy, and is now on the chief command at Portsmouth. He is equally distinguished for his public and private worth and intelligence ; and it is to him, and that excellent patriot, the late Sir Peter Murray of Auchtertyre, the father of Captain Gartshore of Gartshore, that the public are indebted for the very superior roads which everywhere intersect this district of country.

The family of Gartshore, as above stated, is of great antiquity, and has long resided in this part of the country. The present representative of the family, Captain Murray Gartshore, second son of Sir Peter Murray of Auchtertyre, with his excellent and amiable lady, a daughter of Sir Howard Douglas, Bart. her Majesty's Commissioner for the United States of the Ionian Islands, has of late resided chiefly on his estate in this parish, where he is universally beloved and respected. It is understood that he is about to erect a new house among the fine plantations near the Barr-hill. To

judge from the plans, the building will be at once elegant and commodious, and will add not a little to the picturesque beauty of the district.—Major Berry has an elegant and commodious seat near the town of Kirkintilloch, and many fine villas and manor houses of wealthy and respectable individuals are scattered in different parts of the parish. Owing to the gradual dismemberment of the Wigton estate, which, at one period, extended over many neighbouring parishes, the property has been very equally distributed, and is now in the hands of a great many proprietors. In this respect, it may be considered as a model of a parish so circumstanced, and it may therefore not be improper to give an analysis of the present state of property, so as to make figures speak, instead of words.

In the roll of the real valuation of the parish, there are no less than 311 proprietors of lands and houses, so that every nineteenth person nearly is possessed of some heritable property. The number of female proprietors is 52, with a gross yearly income of L. 839, 7s. 10d. It may not be uninteresting to observe the proportion in which this considerable sum is distributed among them. They constitute nearly one-sixth of the whole proprietors, but the proportion of their gross yearly income is only about one-twentieth. The numerals indicate the number of individuals, and the sums their annual income from property. They are put down promiscuously as they occur on the roll.

No. of persons.	Annual income.	No. of persons.	Annual income.
1 .	L. 5 10 0	28 .	L. 4 0 0
2 .	5 18 0	29 .	8 1 6
3 .	71 3 0	30 .	11 0 0
4 .	8 1 6	31 .	3 15 0
5 .	5 5 0	32 .	6 0 0
6 .	36 0 0	33 .	2 11 0
7 .	69 1 4	34 .	7 14 0
8 .	9 0 0	35 .	5 2 0
9 .	6 5 6	36 .	60 0 0
10 .	5 14 0	37 .	29 10 0
11 .	5 18 9	38 .	85 0 0
12 .	2 0 0	39 .	17 0 0
13 .	22 16 0	40 .	21 0 0
14 .	4 15 0	41 .	25 0 0
15 .	7 8 9	42 .	11 19 0
16 .	6 1 6	43 .	17 2 9
17 .	17 14 6	44 .	26 18 11
18 .	12 13 6	45 .	7 10 0
19 .	1 4 0	46 .	13 12 0
20 .	1 5 0	47 .	16 16 0
21 .	21 2 0	48 .	4 5 0
22 .	16 4 1	49 .	4 14 0
23 .	4 5 0	50 .	6 14 9
24 .	27 19 0	51 .	2 0 0
25 .	3 8 0	52 .	16 17 6
26 .	29 15 0		
27 .	9 0 0	Total,	L. 839 7 10

The old original Scotch valuation of the parish is L. 5085. The real rental is L. 14,600 Sterling, which being allocated at 3d. per pound Sterling, as at present, brings a yearly income of L. 121, 13s. 4d. The total number of names of heritors upon the roll is 309, of whom 189 pay minister's stipend, and 144 school-master's salary. The number of proprietors of land of L. 50 and upwards is 33. There are also as follows : L. 10 or under per annum, 40 proprietors; L. 10 to L. 20, 15 do.; L. 20 to L. 50, 31 do.; L. 50 to L. 100, 19 do.; L. 100 to L. 150, 4 do.; L. 150 to L. 200, 5 do.; L. 200 to L. 300, 4 do. This calculation does not include the larger estates. The following are the principal :

Estates.	Acres.	Rental of Lands.	Woods.	Minerals.
Gartshore, .	1518	L. 1488 6 0	L. 220 0 0	L. 250 0 0
Oxgang, .	131	387 0 0	.	.
Shirva, .	170	380 0 0	.	200 0 9
Auchinvoile, .	151	271 0 0	.	300 0 0

There are eleven principal tenants, with sundry smaller ones on the estate of Gartshore, and about eight tenants on Oxgang. There are in the parish 3076 acres, 2 roods, and 19 falls under cultivation, which yields an average annual rental of L. 8468, 4s. 6d. The net produce of lands and houses is as follows :

Districts.	Annual net rentals.
1. Hillhead, east side, ...	L. 722 2 10
2. Burgh lands, East Muir, south-east side, ...	265 11 11
3. Including Woodhead, Woodmill, Dalshannan, }	822 4 6
4. Hole, Barbeth, &c. &c.	.
5. Drum, Drumbreck, Gartshore, &c.	2185 10 3
6. Tintock, East Muir, Luggie bank, &c.	1231 11 0
7. Waterside, Solesgirth, &c.	110 11 4
8. Woodilee, Caefmuir, Oxgang, &c.	925 16 0
9. Muirhead, Greens, Boghead, &c.	554 2 0
10. Industry, Backrow, &c.	386 15 0
11. Freeland Place, Townhead east, &c.	660 15 3
12. Townhead, east and west, Canal bank, &c.	442 7 0
13. Cowgate east, Broadcroft, and Blackcauseway, ...	617 7 9
14. Cowgate west, Blackloch, &c.	1017 6 0
15. High Street, north and south sides, ...	774 3 10
16. Bellfield, Westernmains, &c.	1393 4 2

L. 13,759 9 6

The landward proprietors are about 128, with upwards of 105 tenants under them. The following table will show the comfortable circumstances in which many of the inhabitants of this parish are placed, in regard to that degree of comfort which depends on the possession of property. The kinds of property are lands, houses, and feus;—the numeral letters indicate the number of persons condescended upon :

Proprietors.	Annual income from land.	Annual income from houses.	Annual income from feus.
1	L. 135 0 0	L. 359 0 0	
2	322 0 0	22 13 0	L. 28 11 6
3	190 0 0	141 0 0	44 13 1
4	19 0 0	52 5 0	0 0 0
5	46 0 0	116 5 10	0 0 0
6	11 10 0	130 14 3	1 4 0
7	9 0 0	69 0 0	6 5 6
8	290 0 0	13 0 0	0 0 0
9	45 0 0	81 0 0	0 0 0
10	10 0 0	45 0 0	0 0 0
11	141 0 0	50 0 0	0 0 0
12	28 0 0	81 0 0	0 0 0

As a contrast with the above, we may give some statistics relative to the more dependent classes, which will speak for themselves.

Districts.	Farmers.	In their families.	Weavers.	In their families.
1. Barr,	19	133	8	54
2. Shirva,	9	63	14	91
3. Eastside,			52	280
4. High Street, north side,	3	11	43	160
5. High Street, south side,	0	0	4	16
6. Cowgate,	1	3	104	477
7. Townhead,	3	14	135	823
8. Hillhead-Gallowhill,	3	16	64	202
9. Waterside,	0	0	41	273
10. Middlemuir,	0	0	14	97

Here we have 471 weavers heads of families, with 2473 dependent on them; or making up parts of their families; whereas 38 farmers with their large incomes and greater need of assistance, have only 240 living along with them, either as dependents or as members of their households. The average number of individuals in a weaver's family is five and a fraction; in a farmer's family, six and a fraction; but the means of support cannot be calculated by the same ratio.

In speaking of the habits of the people collectively, we may say with Mr Dunn in the last report of the parish, that they are in general "a virtuous and industrious people." "The pride of mind," he continues, "and impatience of contradiction, which the possession of landed property frequently inspires, perhaps, may occasion too many law-suits." In this respect, they are certainly *naturally* not more pugnacious than their neighbours, although the great subdivision of property among them creates also a subdivision of rights, and, of course, furnishes a greater opening for law-suits. This is certainly one evil arising from an extensive subdivision of heritable rights, but it has also its counterbalancing

advantages, and one of the most remarkable of these is the encouragement of virtuous and industrious habits, arising out of the habitual sentiments of self-respect and self-dependence. This is no imaginary statement; its effects have been manifested in the remarkable fact, that, with the increase of trade and manufactures, a rapidly multiplying population, and in an extensive district of country, within a few miles of Glasgow, no poor's rate was ever imposed by law, till within these few years past: all was done by voluntary contributions. This fact of itself speaks volumes in behalf of the orderly, industrious, and virtuous habits of the people of Kirkintilloch.

IV.—INDUSTRY.

Total families,	-	-	-	-	-	-	1114
Families employed in agriculture, as farmers, cottars, and farm-ser-	-	-	-	-	-	-	
vants,	-	-	-	-	-	-	118
in trade, handicraft, manufactures, &c.	-	-	-	-	-	-	961
not in any of the above employments,	-	-	-	-	-	-	35
Number of wholesale merchants, capitalists, bankers, professional per-	-	-	-	-	-	-	
sons, and other educated men,	-	-	-	-	-	-	50
Occupiers employing labourers,	-	-	-	-	-	-	34
not employing labourers,	-	-	-	-	-	-	72
Labourers in agriculture,	-	-	-	-	-	-	152
Employed in manufactures and machinery,	-	-	-	-	-	-	724
Retail trade, handicraft, or maltsters,	-	-	-	-	-	-	214
Males twenty years of age,	-	-	-	-	-	-	1367
Male-servants twenty years,	-	-	-	-	-	-	1
under twenty,	-	-	-	-	-	-	2
Female servants,	-	-	-	-	-	-	129

When the last statistical account of the parish was drawn up, there were—weavers, 185; stockingmakers, 11; smiths, 15; house-carpenters and cabinet-makers, 20; masons, 10; shoe-makers, 10; saddlers, 4; coopers, 6; a good many tailors, and a few hair-dressers. At that period, namely, 1791, there were in the burgh 1536; but in 1828, when the total population was 5518, there were in the burgh 4172. The following is the state of the principal trades at present, as drawn up by Mr William Moffat, preacher of the Gospel: Slaters, 5; masons, 12; house-carpenters and cabinet-makers, 30; tailors, 20; bakers, 12; shoemakers, 24; blacksmiths and locksmiths, 10; house-painters and glaziers, 4; hair-dressers, 2; saddlers, 2; weavers, 2000.

It will be observed, that there is a decrease in the stocking-making trade, also among the saddlers and coopers, and an astonishing increase among the weavers. Some of these articles are probably supplied from Glasgow. In the Church Extension list I also find the following *heads* of families, namely, 7 founders, 10 printers in cloth, 13 sailors, 5 maltmen, 20 merchants and grocers, 7 carters, 2 plasterers, 2 thatchers, 2 quarriers, 1 mill-

wright, 3 gardeners, 2 sawers, 2 carriers, 2 butchers, 1 musician, 2 calenderers, 6 hatters, 3 painters, 1 nailer, 4 toll-keepers, 60 labourers, 3 surgeons—there are 7 in all.

Agriculture.—The lands are for the most part arable, but still the proportion is not so great as might at first sight be imagined. The total number of Scots acres in the parish is 8527; but by the returns of Messrs Shaw and Miller, two most able practical men, who made up an estimate of the rental of the landward part of the parish in August 1836, which is attested by the sheriff of the bounds, it appears that there are only 3076 acres, 2 roods, and 19 falls, under regular cultivation, leaving an overplus of 5451 acres. A large proportion of this residuum is taken up by the town of Kirkintilloch, and the rest by the canal, railway, public and private roads, hedges and fences of all sorts, which are numerous, farm-houses, streams, and burns, and a few straggling villages.

The only uncultivated land in the parish is towards the east end, about Stron and Barr-hill, and the mosses already alluded to. Altogether the waste lands, with the above exceptions, do not amount to, perhaps, more than 300 acres, if so much. To this amount we may add other 300 acres now under wood, chiefly larch, spruce, and Scotch fir, with a sprinkling of hard-wood. These yield good returns, or may be expected to do so. The average rent of land per acre throughout the parish is about L. 1, 10s. But the average will be better shown as follows: In 131 properties in the hands of the same number of proprietors, and of 108 tenants, the proportion between the number of acres, and the rental per annum, generally on a lease of nineteen years, is as follows: I shall put them down at random, as taken from the books of the heritors, and from other sources of information.

Acres.	Annual rental.	Acres.	Annual Rental.
93	L. 140 0 0	12	22 0 0
70	122 0 0	80	190 0 0
65	65 0 0	70	110 0 0
50	80 0 0	45	95 0 0
30	90 0 0	130	175 0 0
28	80 0 0	80	105 0 0
50	172 0 0	175	111 0 0
9	32 0 0	43	70 0 0
8	26 0 0	70	94 0 0
80	170 0 0	30	45 0 0
60	120 0 0	160	350 0 0
45	100 0 0	130	235 0 9
80	70 0 0	151	271 0 0
90	83 0 0	44	130 0 0
57	60 0 0	36	40 0 0
30	50 0 0	28	55 0 0
80	60 0 0	19	55 0 0
72	100 0 0		
50	55 0 0		
		2252	L. 3626 0 0

The total number of acres is 2252, and the total annual ren-

tal of these acres L. 3828 Sterling; the average is L. 1, 9s. 6½d. or L. 1, 10s. nearly per acre. There is very little permanent pasture except at Barr-hill. The best land in the parish is at Shirva. Oats, barley, hay from sown grasses, flax, pease, beans, and a small proportion of wheat, are the principal crops sown. The usual rotation of crops in dry lands is for the *first* year a white crop; for the *second* year a green crop; on the *third* year the land is sown down, partly with wheat, barley, or oats, and in the *fifth* and *sixth* years it is allowed to lie in pasture. In wet lands, generally two white crops are taken, or one of them in flax, which is chiefly sown towards the east end of the parish. The other crops are as above. In the third year, some farmers sow down with barley and rye-grass; and where that does not answer, they plant potatoes; in the fourth year, there is a hay-crop, and the fifth and sixth are pasture. Flax is not so much sown now as formerly. Flax, after paying expenses, may be worth from L. 5 to L. 6 per acre; oats at 5 bolls per acre, L. 3, 10s.; wheat from L. 9 to L. 10; hay from L. 5 to L. 6 on clean land; barley, L. 5; potatoes, L. 16 per acre. The price of manure for an acre of land, if well done, is L. 8, 2s. The price of labouring it, L. 1. Dung is sold at 4s. and 4s. 2d. per square-yard. There is 1½ square-yard in a ton. One hundred tons costs by the Canal L. 20, or 5s. per ton. Horse and cow-dung is sold in Kirkintilloch at 6s. per ton. About four carts of dung are required for an acre of potatoes, which will cost L. 10. An acre of potatoes, when laboured by the spade, costs about L. 1, 10s., for labour by the plough, L. 1, 1s. Calculating the expense of labour as above, by the plough, per day, there will be for three men, 6s.; three women, 3s.; a plough and two horses, 12s., = L. 1, 1s. The best men-servants for agricultural labour may be had at from L. 16 to L. 20 per annum, with board and washing; boys at from L. 4 to L. 10. The best women-servants are hired at from L. 9 to L. 10 per annum; inferior, L. 6; labourers in winter earn 9s. per week, in summer, 12s.; masons, L. 1, 1s., and carpenters, 18s. The rate of wages in the following trades from 1810 to 1820 was,—

	1811.	1812.	1813.	1814.	1815.	1816.	1817.	1818.	1819.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Masons per day,	2 10	3 0	3 0	3 0	3 0	3 0	3 4	3 2	2 6
Joiners & Carpenters,	3 0	3 0	3 0	3 0	3 0	3 0	3 0	3 0	2 4
Masons labourers' do.	1 10	1 10	1 10	1 10	1 10	1 10	1 10	1 6	1 3
Slaters' ditto.	3 4	3 4	3 4	3 4	3 6	3 4	3 4	3 4	3 4
Sawyers' do.	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0
Blacksmiths' do.	2 6	2 6	2 6	2 6	2 6	2 8	2 8	2 8	2 8
Plasterers' do.	3 6	3 6	3 6	3 8	3 8	3 6	3 6	3 6	3 6

The working hours of masons and all who labour in the open air, are reduced from 1st November to 1st March, and from that month till November are again increased, and of course the wages bear the same proportion. In the above calculations, allowance is made for these alterations, and the average only is given.

There are about 148 horses in the parish, employed entirely in agricultural labour, which is at the rate of 4 horses to every 100 acres. In the town of Kirkintilloch, there are 20 common carter's horses, taxed at 10s. 6d. each for road-money. There are also in the parish about 740 cows; generally about 12 or 14 milch-cows, or, including young cattle, 20 in all to the hundred acres of arable land. There are, besides, a number kept by private individuals, for retailing the milk to the public. The horses are of the Clydesdale breed, but rather small. The cows are of the Ayrshire breed, and very good of their kind. Mr Anderson of Smithston, on the eastern borders of the parish, has been long celebrated for the excellent sorts of cattle reared by him. He and his father, who was also a skilful rearer of cattle, have contributed much to the amelioration of the breed both of the horse and of the dairy-stock of cattle in the district. He was one of the prize-takers at the late great cattle-show in Glasgow. The average rent of grazing is at the rate of L. 2, 10s. per ox or cow grazed, and at the rate of 10s. per ewe or full-grown sheep pastured for the year. But these latter are very few in number. The keep of a horse per annum to the farmer who has every thing within himself, is about L. 12.

There has not been so much draining in this parish as in some others, but to this general remark there are many individual exceptions. Mr Horn of Braes is well known as one of the most able and successful agriculturists in the west of Scotland, and has drained more than any other person in the parish. Messrs Stewart of Barbeth, and Inglis of Woodhead, have brought in a good deal of moss. The following are the estimated expenses of draining and improving one acre of mossy marshy land.

	Per Acre.
Tiles per acre,	L.6 0 0
Casting drains 8d. per rood, and soles for tiles of wood,	1 0 0
Casting and filling, 1s. per rood,	0 4 0
For delving,	3 10 0
For putting one inch of sand on surface,	2 0 0
For dung,	3 2 0
	L.15 16 0

In every hundred acres of arable land, there may be 20 acres in oats, 8 acres in potatoes or green crops, 20 acres in hay, 6 acres in wheat or barley, and fully one-half in pasture. There may be in the whole parish annually about 615 acres of oats, 246 acres of potatoes, 615 acres in hay, and 184 in wheat or barley, which, out of 3076 arable acres, leaves 1660 for white and green crops, and 1416 for pasture, which latter amount is probably a little below the mark.

Produce.—Proceeding upon the above data, the average gross amount of produce raised in the parish, as nearly as can be ascertained, will be as follows :—

Produce of grain of all kinds, whether cultivated for the food of man or the domestic animals,	L. 5900	0	0
Potatoes, turnips, &c.	9900	0	6
Hay,	2000	0	9
Pasture,	1500	0	0
Flax,	200	0	0
Gardens and orchards,	200	0	0
Thinning woods,	100	0	0
Minerals,	2575	0	0
	L. 16,275	0	0

An acre of oats in this parish is worth about L. 6 Sterling; wheat, L. 8; hay from L. 3 to L. 6; potatoes, L. 12. The above estimate does not include the manufactures. The mills for working up the agricultural produce are

	Acres of land attached.	Value per annum as rental.
Woodmills, oats, flour, &c.	6	L. 40 0 0
Duntiblae, do. do.	3	70 0 0
Fergushill, flax,	20	50 0 0
Boghead, do.	12	25 0 9
Hole, do.	45	95 0 0
		L. 280 0 0

Woodmills is the property of Mr Wilson, and has been lately completely fitted up with new machinery of the most approved construction, with a thrashing mill attached. Thirlage is still in use in the corn-mills.

Manufactures.—The principal manufacture in the town is that of cotton goods for exportation. The principal manufacturers are Mr John Marshall, and Mr Grey of Duntiblae. Mr Marshall at one period employed from 1200 to 1400 hands, and at present from 500 to 800. The trade here is chiefly in lappets for the East India trade, with a few purls and victories for the South American trade. Lappets are muslins with raised flowers in imitation of tambouring; purls are a gauze with lappeting on it; victories

are a sort of thin gauze web. The lappets are woven in the usual way, with the aid of a wheel with catches, and a spring which raises and depresses the needles which form the flowers. The thread is never changed, but always comes through the same needle, and hence resembles tambouring. This trade is at present most depressed. Mr Marshall employs 44 journeymen, who have everything provided. They can make 6s. and 7s. per week each. This work goes all to India, from whence letters are often received in two months. In 1835, there were 1600 weavers in the town of Kirkintilloch; according to the statement of Mr Marshall, there are now about 2000 weavers. Perhaps the cotton trade, in shape of wages alone, will bring into the town of Kirkintilloch, L. 700 per week, or L. 36,400, per annum, which is only at the moderate allowance of 7s. per week each, or L. 18, 4s. Sterling per annum. Among the 2000 weavers, there are only, however, 471 male heads of families, and, allowing five to each family, it will make 2355 individuals in all, but from actual surveys, the number dependent on these 471 heads of families is 2473. Now, if we take this latter number as the gross amount of weaving population, we will find that there is only about one-fifth not employed at work, so that there must be a great deal of clubbing, or of the joining of wages together, which may make up a good common income. A weaver's wife can wind pirns for three looms, which, at 3d. each, yield 9d. per day.

Besides the cotton trade, there is a calico printfield employing about 120 hands, including printers, mechanics, and labourers. There is also a silk-hat manufactory employing upwards of 20 hands, and an iron foundry well employed. There are two distilleries in constant operation, and one occasional distillery. Of the two in constant operation, the one produces 1800 gallons of whisky per week, and the other 1400 gallons, or in all 3200, which is 116,400 gallons per annum, which at the moderate computation of 6s. per gallon, will yield per annum L. 49,920 Sterling.

The average hours of labour for weavers is 12 hours per day; masons and labourers 10 hours in summer, and 7 in winter; joiners and carpenters 10 hours; shoemakers, blacksmiths, and tailors 12 hours; painters, plasterers, and slaters the same as masons. A labourer's wages per day ought to be equal to the price of a peck of oatmeal.

V.—PAROCHIAL ECONOMY.

Town.—The town of Kirkintilloch is a very ancient burgh of

barony. "It was erected," says the late Rev. William Dunn, "about 1170, by William King of Scots, Baron of Lenzie, and Lord of Cumbernauld; and still holds of the barony of Cumbernauld for the payment of 12 merks Scots of yearly feu-duty." At this rate it was erected into a burgh of barony two years before the city of Glasgow, which was in 1172; but I find from the town's documents, that the true date of the erection of the burgh of Kirkintilloch is 1184. There was a renewal and confirmation of the charter by the Earls of Wigton, first at Cumbernauld, 10th December 1520, and again at Boghall, 10th February 1527. The annual feu-duty is as above, 12 merks or 13s. 4d. per annum. The burgh proprietors have also the teind-tack (dated November 1642,) of the teinds parsonage and vicarage of the burgh lands or Newlands mailing. The town paid on obtaining this grant 550 merks, or L. 30, 11s. 1½d. Sterling. The burgh lands are the thirty-three and a-half Newland mailings, including the town and lands of Boghead and Gartcross. The privileges with which the town is endowed are ample. Its burgeses elect their own magistrates, independently of the lord of the barony. The magistrates are two bailies, and they are annually chosen. They are empowered by the charters of the burgh, to hold courts, levy fines, imprison offenders, or even banish them from their liberties; and, in short, to exercise every right with which the baron himself was invested before the erection of the burgh. These rights, the community have continued, ever since that period, to enjoy undisturbed. They were in no degree affected by the act, by which the British Parliament in 1748 abolished the heritable jurisdictions in Scotland. None are entitled to vote at the election of magistrates, except burgeses being the proprietors of the Newland mailings. They are at present twenty-two in number, sixteen of whom are resident. Courts are held, but at no stated times; a proof that the cases are not numerous. The burgh, besides the above, is possessed of no exclusive privileges, and has no local acts in its favour. There are no local taxes, nor any incorporation of trades. The town's debt is about L. 300 Sterling, the annual revenue about L. 30, the greater part of which is expended in paying the interest on the debt, and in keeping up public buildings. The population of the town at the present moment may be about 4600 souls. There are 180 houses at L. 10 per annum of rent.

The community are possessed of a court-house and jail, with a

steeple and bell, to which an excellent school-room for the town and parish is attached. The public buildings are under the superintendence of the magistrates. They were erected here in 1814. There was formerly an excellent bell in the steeple, 19 cwt. which was cracked; the present town's bell with appendages weighs only 14 cwt.

The total expense of erecting the public buildings, with the parish school-room, is as follows:

Mason work, &c.			Carpenter and mason work.		
Court-room, prison-rooms, and house below,	L. 145	0 0	Staircase without roof,	L. 30	19 0
Staircase,	93	0 0	Roof of do.	14	14 0
School-room,	89	0 0	Court-room, prison-rooms, and house below,	99	14 0
Grating for windows,	10	0 0	School-room,	200	17 9
	L. 337 0 0			L. 346 4 9	

Prisons.—The total cost, including all of the above items, was L. 683, 4s. 9d., from which deduct L. 15, 16s. for old timber and slates, and the net sum paid is L. 667, 8s. 9d.

The prison is very small, and is used for persons confined for short periods only, and not at all for debtors. It forms part of the town-house, and stands at the cross in the middle of the town. There are only two cells, and there is no airing yard attached.

Means of Communication.—It is to the two distinguished individuals formerly alluded to, that the public is chiefly indebted for the admirable roads which intersect the parish in all directions. Besides the Edinburgh and Glasgow road by Kilsyth, which runs through the parish to the north of the town, there are the following roads, with their respective lengths in the parish:—From Park-burn to Inchbelly, 2 miles; Inchbelly to Shirva, Twechar and Auchinvole, 4; Will-head to Gartcross, &c., 3; Oxbang to Bedcow and Mossfinnin bridge about 3; Townhead to Boghead, 1; Gartcommon to Badenheath, 4; Deerdyke to Shangan, 1; = 19 miles.

The road-money collected is at the rate of L. 2 Sterling on every L. 100 of valuation. It is as follows:—Road money for landward part of the parish, L. 74, 16s. 6d.; do for burgh, L. 63; horses at 10s. 6d. each, viz. twenty belonging to carters in town, L. 10, 10s. = L. 148, 6s.

The first public railway in Scotland, on the modern improved principle, was the “Monkland and Kirkintilloch Railway,” which connects the rich coal and mineral districts of the Monklands, with the Forth and Clyde Canal near Kirkintilloch. The act was

obtained in the year 1824, (5 Geo. IV. cap. 49.) The original capital was L. 32,000; but, by a new act in 1833, (3 Wm. IV. cap. 114,) the total capital was raised to L. 52,000. The northern terminus is at Kirkintilloch, and the south-east at Palace Craig, in old Monkland, including a length, in all, of about eleven miles. The distance between the rails is $4\frac{1}{2}$ feet. The railway was at first laid with rails weighing twenty-eight pounds to the yard, but these have been found much too light, and the whole is now in process of being laid with rails weighing forty pounds per yard. No passenger waggons are allowed on this railway. It is connected with the Ballochney, and Glasgow, and Garnkirk railways in the south, and these penetrate into all the great mineral deposits in Lanarkshire. Great quantities of coal and iron are transported by this railway to the depot in the Forth and Clyde Canal. The coal is of very superior quality, and is laid down in the town of Kirkintilloch, at the rate of 15s. per waggon of 48 cwt. In 1835, about 49,000 tons of coals, and 3325 tons of pig-iron were shipped on the canal from the railway.

The Forth and Clyde canal runs for about six miles along the northern border of the parish. It was commenced in 1768, by virtue of an act, 8 Geo. III. cap. 73, but was not finished till 1790. The total length from sea to sea is thirty-five miles. The highest point at Windford Loch is 156 feet above the level of the sea. The average width at the surface is 56 feet, at the bottom 27 feet, and the depth of water is nearly 10 feet. Vessels of 19 feet beam, 68 feet keel, and drawing about 10 feet water, can pass along the navigation. In its course, the canal passes over 10 large aqueduct bridges, and 33 smaller ones; and 33 drawbridges are thrown over the navigation for the crossing of public and private roads. In all, there are 39 locks, each 74 feet long between the flood-gates, and 20 feet broad. The canal is supplied with water by eight reservoirs, covering 721 acres. The capital stock of the company in 1820 was L. 519,840; the income in 1836, was L. 63,743, 16s. 7d. The total original expense was L. 345,618, 12s. Allowing eight acres of land to a mile, the mere ditch of the navigation in this parish will occupy 48 acres. There are seven swift iron-boats on the canal for the conveyance of passengers, which travel at the rate of ten miles per hour. The following is the number of passengers booked at the drawbridge of Kirkintilloch, near the manse, for the periods specified, in 1837 :

Months 1837.	First week.	Second week.	Third week.	Fourth week.
April, - -	559	387	391	467
May, - -	388	420	490	836
June, - -	463	461	486	551
July, - -	481	505	593	643
August, - -	472	257	579	699
October, - -	326	549	389	519
January, - -	604	229	323	449

The total number of passengers by the canal passage boats from this station alone in seven months is 13,516, or at the rate of 1932 per month, and 23,170 per annum. There is also a daily coach to Glasgow from the Washington Inn at nine morning. In 1832, and for some time before and after, there were five iron steamers with the paddle-wheels in the stern plying on the canal. Their names, tonnage, and power of engines were as follows :

	Tonnage.	Power of Engines.
Lord Dundas, -	40	16
Cyclope, - -	50	16
Manchester, -	50	35
Edinburgh, -	40	16
Union Tug Boat, -	25	12

These steamers are now discontinued. It was on this same sheet of water, in March 1802, that Mr Symington, in a large vessel with a steam engine of more than twenty horse power, passed over a distance of nineteen miles in six hours, the steamer dragging two loaded vessels after her, and having Lord Dundas, and Mr Speirs of Elderslie on board. It was here also that Mr Symington initiated the American Fulton in the mysteries of steam navigation, two years before he sailed for America to carry his projects into effect.

Gas-Work.—A gas-work has lately been erected for the purpose of supplying the town with gas. The whole is to cost L. 1600 at L. 3 a share, of which 1000 shares are sold ; L. 2 a share is only required. The mason-work cost L. 421, the carpenter-work L. 88. The roof is of iron. The main stalk is square, and 50 feet high. The tanks or cylinders are 28 feet diameter, and 10½ feet from the top of the cap to the spring of the foundation. There are 6 retorts ; the main pipe is 4 inches diameter.

*Ecclesiastical State.**—The parish church of Kirkintilloch is

* The inhabitants of Kirkintilloch, with the neighbouring parishes of Cadder, Cumbernauld, and Kilsyth, participated largely in the well-known revival of religion which took place at Cambuslang and various other parts in Scotland in 1742. The first appearance of the impressions which were afterwards so largely vouchsafed to many individuals in this district, are recorded by Mr Robe, then minister of Kilsyth, and also by Mr M'Laren, the minister of this parish. They are so very remarkable that they are worthy of being here held up to their "succeeding race," where political religion too much predominates over the vital and spiritual godliness which actuated

situated in the centre of the town, which, being near to the western angle of the parish, is not more than a quarter of a mile distant from one extremity, while it is fully five miles distant from the opposite extremity. It is situated conveniently, however, for the major part of the population. As already stated, the present parish church was formerly the Chapel of the Virgin Mary, and, from a stone above one of its windows, it appears to have been built in 1644, or about fifteen years before the separation of this parish from the parish of Cumbernauld. The ruins of the old parish church is near to Oxgang, where there is still a burying-ground. The present church is in a very miserable state of disrepair. The walls are time-worn and ungainly; the timbers, in general, fragile and insufficient; the galleries inconvenient and crazy, one of them having been lately *taken* down in case of the danger of its *coming* down at an inconvenient season; the seating is fast crumbling into ruins; the walls outside filled up with dust of former generations to the height of four or five feet from the spring of the roofing, and with the walls and flooring, of course, intolerably damp. Under these circumstances, the Presbytery of Glasgow, some years ago, gave a deliverance enjoining the heritors to provide the parish with a new parish church; but a few of the heritors objecting, carried the matter to the Court of Session, where the decree of the Presbytery was reversed. In this case the architect reported, that the existing fabric might be repaired so as to be a serviceable church for from twenty-five to thirty-five years, at an expense of L. 660, while a new church of the same size would cost L. 1280. Mr Dunlop, advocate, is of opinion, that the same decision would have been given here as in the case

the faithful in olden times. The narrative of the above reverend fathers informs us, that, about April 1742, "sixteen children or thereby, in the town of Kirkintilloch, were observed to meet together in a barn for prayer; the occasion of which was, that one of them said to the rest, What need is there that we should always play; had we not better go and pray? Wherewith the rest complied. The minister at that time, the Rev. Mr Burnsides, who was succeeded immediately after by Mr M'Laren, as soon as he heard of it, carefully inquired after them, and met frequently with them for their direction and instruction. And as I am informed, (says Mr Robe), they make progress and continue in a hopeful way. This made much noise in the country side, and deep impressions both upon young and old." On Sunday, 20th May following, Messrs Robe and M'Laren preached at Kirkintilloch. Mr Robe says, "There we saw Zion's mighty King appearing in his glory and majesty, and his arrows sharp in the heart of his enemies. Many were awakened there, and brought under great spiritual distress." Some time after we are told, that, in the parish of Kirkintilloch, there were known to the minister to be about 120 under a more than ordinary concern about their salvation, including the praying young, who were now increased to a greater number than formerly mentioned. Mr Whitefield preached about this time both here and at Cumbernauld and Kilsyth. In the latter of these parishes there were at least 300 awakened, in the parish of Cumbernauld, 14 or 15.

of Roskeen, had the architect reported in regard to Kirkintilloch church, that, in consequence of raising the level of the floor, which was required there as in Roskeen case, it would be necessary to heighten the walls, in order to afford proper accommodation to the sitters. The architect, however, had *omitted* all notice of this matter in his report; and when the chargers, on the cause coming into the Inner-House, proposed to put additional queries to him to bring out the facts as to this matter, the Court held them foreclosed, by their not having previously objected to the report, and refused to allow additional queries to be put. It was on this point that the case for the Presbytery was lost; and the church, accordingly, remains in its present ruinous condition.* It contains about 800 sittings, and is generally crowded every Sabbath. The regular communicants average 700. No free sittings, and only a very few pay for their seats. The glebe amounts to 8 acres, including the garden. About 6 acres of the glebe were lately let for L. 14, 10s. per annum.

The Report of the Commissioners for Religious Instruction in Scotland calculate the teinds as follows:—

Gross amount of teinds belonging to proprietors:—Meal, 1 boll, 2 firlots, 1 peck, 2 lippies, at L. 1, 6s. 6d.; money, L. 904, 5s. total, L. 905, 11s. 6d. Applied to ministers' stipends and communion-elements out of the gross teinds:—Meal, 123 bolls, 1 firлот, 1 peck, at L. 102, 9s. 4d.; barley, 121 bolls, 2 firlots, 3 pecks, 2 lippies, at L. 133, 4s. 5d.; money, L. 26, 7s. 6d. total, L. 262, 1s. 3d.

Value of the unappropriated teinds belonging to other persons, L. 643, 10s. 3d. The church-lands in the parish are, Vicarland on the East croft of Kirkintilloch, 2 acres; Priestland, 2 acres at Auchinvole, held anciently of the prebends of Biggar; Lady-yard, half an acre in middle of burgh-holm, held of chaplains of Kirkintilloch.

The new church of St David's, upon the Assembly's Church Extension plan, was erected in 1837. It is fitted to contain 1012 sittings, and was erected at the cost of L. 2300. It was opened on Sabbath, 8th June 1837, and the present incumbent was inducted 3d May 1838. St David's is the only church in town *purely* on the voluntary principle. All the rest are more or less endowed, as under:

United Secession, Rev. Andrew Marshall.—House valued at L. 26, 12s.; land, L. 4, 7s. 6d.; feu-duties, 11s. 8d.; total an-

* Since the above went to press, the Church has undergone a thorough repair.

nual endowment, L. 42, 7s. 6d. The stipend is about L. 100 per annum.

Original Burghers, Rev. William Tannahill.—House, L.24; land, L.9. Total, L.33. Besides the above, the United Secession congregation have a place named Orchardyard, worth L.2 per annum; and the Original Burghers have houses and feus worth L.8, 9s. per annum. The comparative number of Churchmen and Dissenters is as follows:

Districts.	Estab. Ch.	United Sec.	Old Burg.	Method.
1. Barr, ...	239	21	24	29
2. Shirva, ...	164	12	19	—
3. Eastside, ...	328	108	98	1
4. High Street, north side, ...	371	125	82	13
5. West High Street, south side, ...	86	27	23	10
6. Hillhead, ...	349	209	74	2
7. Waterside, ...	225	8	114	—
8. Gartshore, ...	190	35	38	—
9. Middlemuir, ...	64	4	24	—
10. Cowgate, ...	682	300	169	18
11. Townhead, ...	717	242	213	12
12. Omitted in Townhead, ...	11	—	3	—
13. Gallowhill, ...	111	—	5	—
14. Cordalet, Bellfield, &c.	46	43	17	—
	3583	1234	903	85

The proportion belonging to the Established Church is 510, more than the half of the whole population; the proportion belonging to the United Secession is 305 less than the fourth; those belonging to the Original Burghers are scarcely a sixth, and those belonging to the Methodists are only about one-seventeenth. The following is the state of church accommodation in the above districts, the names of which will be ascertained by the corresponding figures, as above:—

Districts.	Seats taken.	Proprietors.	Communicants.
1.	32	49	78
2.	7	3	52
3.	70	10	102
4.	75	4	84
5.	15	46	22
6.	110	40	127
7.	28	41	77
8.	23	18	76
9.	6	38	18
10.	214	54	154
11.	151	—	234
12.	1	4	1
13.	3	—	27
14.	10	—	11
	765	342	1055

The parish has lately been divided, *quoad spiritualia*, into the parish of St David's and the old parish of Kirkintilloch. The

boundaries of the new parish are as follows: From the bridge leading from Campsie on the north, along the coal-road, and then up the High Street to the Cross; thence along the Cowgate and down the Broadcroft to the river Luggie, and by it to the canal; then across the canal by the Hillhead-bridge, onward by the Longmuir road to the Twechar road; then up the Bord-burn and onward to the Moss-water; it is then bounded on the east and north by the parishes of Cumbernauld, Kilsyth, and Campsie. It contains a population of about 2700 souls; a number sufficient for the strongest man's superintendence.

Education.—The instruction at the parochial school consists of English, writing, arithmetic, book-keeping, mathematics, geography, Latin, Greek, and French. The present very able and efficient teacher is the Rev. Andrew Love, a licentiate of the Church of Scotland. The salary is L. 34, 4s. 4½d. paid by 144 heritors. The average wages may be about L. 30; other emoluments about L. 4. The Rev. Mr Love informs me, that his average number of scholars, summer and winter, falls little short of 124. There is also a subscription school, taught by Mr Hendry, and another with a remarkably elegant fabric at Gartshore, taught by Rev. Mr Donald, which is upon a charitable foundation, and was erected by the munificence of a lady of the family of Gartshore. There are, in all, nine schools in the parish, one parochial school, as above, two endowed schools, and the rest unendowed. In 1833, the numbers and ages of those attending school were as follows: numbers of children taught to read under five years of age, 2; five to fifteen, years of age, 480; to write, from five to fifteen years of age; 199 children at parochial school, from Lady-Day to Michaelmas, 124; children at schools not parochial, from Lady-Day to Michaelmas, 522; from Michaelmas to Lady-Day, 545.

The number of children under twelve years of age attending school in the various districts of the parish in 1837, according to the Church Commission Returns is, Barr, 321; Shirva, 11; High Street, north side, 53; West High Street, south side, 19; Hillhead, 49; Waterside, 31; Gartshore, 28; Middlemuir, 11; Cowgate, 102; Townhead, 109; omitted in Townhead, 2; Gallowhills, 8; Cordalet, Bellfield, &c. 18, total 472. The total number of scholars, as far as can be ascertained, may be in all 669, of whom 472 are under twelve years of age, which is at the rate of $9\frac{5}{8}\frac{2}{3}$ ths of the whole population. Children twelve years of age and up-

wards form about half the population, which in this parish will be 3078, —those under twelve, and of course not reaching that age, will be about 2500; of these 472 are attending school, which is about a third of the number, or one-thirteenth of the whole population.

There are two libraries, namely, a parish library and a subscription library.

Poor and Parochial Funds.—The Gartshore mortification in favour of orphan children was originally about L. 1100. Each orphan is allowed a firlo of oatmeal at a time, or one boll annually. The sum received by each is in no case to be less than L. 1, or more than L. 5 per annum. Some get 1s. 8d. per week in money. The oatmeal in December 1836 was 5s. 10d. per firlo; in July 1837, it was 5s. 2½d.; in December of the same year, 4s., and in June 1838, it was 4s. 4d. per firlo. There were lately 23 orphans on the charity, 12 of whom were boys. The following was the state of accounts in 1836 and 1837: Receipts 1836, received from Miss Galloway, L. 9, 13s. 4d.; lifted from Ship Bank, L. 10; lifted all the money from Ship Bank, L. 20; interest on above sums, L. 3, 13s. 4d.; total L. 43, 6s. 8d. Receipts for 1837, received from Mr Gordon, factor at Gartshore, L. 35.

Some time ago, L. 1000 Sterling was left by John Adam, Esq. London, the interest of which is to be devoted exclusively to the support of the poorest of the poor, or part may go for the education of the same class. The trustees are the heritors and kirk-session. The sum has not yet been realized, but the principal, with interest when it arrives, will amount to a considerable capital. In 1837, there was collected for coals at the parish church, L. 9, 16s.; at St David's, L. 5, 0s. 6d.; from Mr Calder, 10s.; total, L. 15, 6s. 6d. Paid at Glen Collieries, L. 12, 16s.; Cowgate toll, 13 carts, 2s. 6d.; tolls, 11s.; horse, 16s.; total, L. 14, 5s. 6d.

An assessment for the poor was only imposed in 1831. It amounts to twopence per pound:

	1835.	1836.	1837.
Paupers on permanent roll,	39	39	41
Persons not on permanent roll,	130	134	123
<i>Funds.</i>			
	1835.	1836.	1837.
Amount of assessment for support of poor,	L. 96 16 2	L. 98 14 9	L. 100 0 0

The average number of poor is 168, and the average amount of assessment, L. 98, 10s. 4d.

	1835.	1836.	1837.
The actual amount of free funds distributed among paupers on permanent roll, }	L. 145 12 0	L. 146 14 5	L. 151 7 2

Total annual amount of funds distributed, L. 173, 17s. 8d.
 The highest rate of relief is L. 5, 4s.; the lowest, L. 1, 6s. per annum.

Before the litigation about the parish church before alluded to, the weekly collections at the church door were on an average L. 1, 10s. per week, or L. 62 per annum. On the heritors, who were the chief profitters from these collections, refusing the people who paid them, proper church accommodation, the church door collections fell off to 12s. per week, or L. 39 per annum, which is a diminution of 18s. per week, which has ended in a permanent poor's rate, and a new church must follow in due time to the boot. Such are the unhappy consequences of mutual misunderstandings.

The pensioners in the session 1st August 1837, were 41 in all, 27 of whom were females, and 7 widows. The rates per week were 1 at 6s.; 1 at 2s. 6d.; 1 at 1s. 8d.; 3 at 2s.; 7 at 1s. 6d.; 19 at 1s.; 7 at 6d. &c. The weekly sum paid was L. 2, 9s. 2d. The effects of a poor stent may here be watched with great advantage; and it is desirable that some one would take the trouble of making the results known to the public.

Fairs, &c.—There are three fairs held annually in the burgh, chiefly for the sale of cattle, namely, on 2d Tuesday of May, the last Thursday of July, and the 21st of October. The market-day is on Saturday, but is not much observed. The lintseed Saturdays were formerly great marts for the sale of the commodity, from whence they derived their names; but flax is not now so much cultivated as formerly, and these markets have accordingly declined with the cause which produced them.

The revenue from the post-office is about L. 230 per annum, but is much less since the Campsie post was withdrawn. Letters from Glasgow arrive by a mail gig every morning at six o'clock, and are dispatched at eight o'clock. Letters arrive from Falkirk at eight o'clock, and leave at six o'clock. There is a receiving-house in Cowgate, which closes at half-past seven.

Inns and Alehouses.—There are about 40 inns and alehouses in the parish. These are too frequently viewed as the *causes* of the corruption of morals among the lower orders, whereas they are only the *effects*.

The town of Kirkintilloch lies 49 miles west of Edinburgh, 20 south-west of Stirling, 16 east of Dumbarton, 7 north of Glasgow, 5 south-west of Kilsyth, and 3 south-east of Campsie. The parish is destined to receive an additional advantage from the Edinburgh and Glasgow Railway, which is to pass throughout its whole length. It begins in the west near Pinkerton-hill, runs north by Coulstone, Bishopriggs, Corshill, Miremailing, Claddens, Cadder-moss, Lochside distillery, and Mountain-moss, and enters Kirkintilloch passing Garngabber, near which it crosses the Monkland and Kirkintilloch railway, passes on by Wamflat, crosses Luggie water west of Drumbreck, and runs on by Mosside, Drumgrew, and Easterboard, where it leaves the parish, and enters Cumbernauld.

June 1839.

PARISH OF KILMARONOCK.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. W. B. S. PATERSON, MINISTER.*

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—The name evidently signifies the cell, chapel, or burying-place of St Marnoch.

Extent and Boundaries.—The south part of the parish of Kilmaronock is situated at 56° of north latitude, and 4° 30' of west longitude. If reduced to the form of a parallelogram, it would measure about 5 miles in length, by 3 in breadth; and, consequently, its contents are about 15 square miles. It is bounded on the north and east, by the River Endrick; on the south-east, by part of Finnich Glen and Drymen parish; at the south point, by Dumbarton parish; on the south-west, by Bonhill parish; and on the north-west, by Lochlomond.

Topographical Appearances.—The parish is adorned with a great variety of wood, both natural and planted, hedge-row and detached trees, chiefly oak, beech, ash, and larch; and it is watered by several springs, rivulets, and the River Endrick. The land of the parish is mostly arable, there being but little of it hilly or moorland, for the

* Drawn up by Mr Peter Bain, Parochial Schoolmaster of Kilmaronock.

pasture of sheep and cattle. The three most elevated parts of its surface vary between 500 and 1000 feet above the level of the sea, which are the highest part of the little range of hills on the west, commonly called Mount Misery, Duncryne or Duncruin, in the centre, and the elevation towards Dumbarton moor on the south. The western range begins at Balloch, in Bonhill, on the south, and extends northward to Ross along the south-east shore of Lochlomond; and is, at the highest part, about 900 feet in elevation. The part on the north end, which belongs to Mrs Macdonald Buchanan, is mostly planted with larch, oak, &c., but the rest is unplanted. From the summit of Mount Misery, there is to be had an extensive and splendid view. Toward the south, are to be seen the vale of Leven, with the numerous public works along its classic stream, the town and castle of Dumbarton, and part of Clyde and Renfrewshire; on the west, in the distance, the lofty hills of Cowal, in Argyleshire, rising beyond those of Cardross, Row, and Roseneath; and the extensive and apparently continuous range along the west side of Lochlomond, in Luss and Arrochar, crowned at the north end by the lofty Benlomond, and in the same direction the intervening lake, interspersed with its many wooded islands; on the north-east, Benledi in Perthshire; and closer at hand, the hills of Buchanan, with the river Endrick intervening, and meandering through the plain along the woods and pleasure grounds around Buchanan House; and on the east, and toward the south, the greater part of Strathendrick, with the Ochill, Fintry, Killearn, Strathblane, Campsie, and Kilpatrick hills, along the horizon. The hill which I would next notice is Duncryne. Its original orthography was Duncruin, being composed of *dun*, signifying hill, and *cruin*, round; and it was probably thus named from its round or conical shape. It stands in the very centre of the parish, and is a conspicuous, beautiful, and rather a fantastic object. It rises rapidly from the plain on the west and north sides, to the height of about 450 feet, and, on the south-east, it is only about 250 feet high, whence there is a gradual descent to the plain extending for about a quarter of a mile. The area of the base on which it stands seems to contain about two acres, from which it gradually tapers to the summit, till it contains only about two roods of surface, which is pretty level. The ascent is rendered easy by means of a pathway approaching the hill from the north-west, and winding along the north, east, and south, till it reaches the top, on the west. It is most-

ly all covered with soil, and the bare rock appears only in a very few places. It is now the property of the Duke of Montrose, and is covered with young oak, larches, &c. having been planted a few years ago by the late Duke. The body of the hill seems to be chiefly composed of a kind of trap rock, which is rendered softish by exposure to the action of the atmosphere; while, in the rest of the parish, with the exception of some trap dikes (running from south-west to north-east,) and limestone, the rock is composed of a red or grey sandstone of a very solid and compacted grain. From the top of this hill, there is also a very fine view to be had of almost the whole parish, and all the objects seen from Mount Misery, with a very few exceptions. The third elevation that remains to be noticed, is that toward Dumbarton-moor. This rises to a height considerably greater than any of the other two. Some good limestone has been found in this moor; and there is also a cascade of considerable size and beauty in the glen which runs northward through the farm of Gallengad. This moor has been rendered notorious for some time by means of a dispute which arose between the magistrates of the burgh of Dumbarton, and some proprietors in Kilmaronock, respecting the marches between their properties. The matter was litigated for about seventy years, and various decisions were given with regard to it in courts of law; but it was lately brought to a final decision by Mr Alison, Sheriff of Lanarkshire, to whom the matter was referred, and to whose judgment all parties agreed to submit. In the hollow part which lies between this moor and Duncryne Hill, there are a few farms containing pretty good land; but the greater part is of inferior quality. There is also in it a large extent of peat-moss stretching from south-west to north-east, and containing nearly 100 acres. This is so soft and deep, that a great part of it has been hitherto considered unfit for cultivation.

Hydrography.—From Drymen Bridge to where the river Endrick runs into Lochlomond, the distance is scarcely four miles in a straight line; but by following its numerous windings, the distance is nearly doubled. It thus flows sluggishly along its mazy course, there being only about ten feet of rise from the level of Lochlomond, when the lake is at its ordinary height, to about 100 yards below Drymen Bridge. It is navigable at times for *scows* or other flat-bottomed craft, for all this distance: and coals are thus conveyed up, and wood or other commodities down the river, and

hence to Leven and other distant markets. At its junction with the lake it is often about two feet deep in summer, and for about two miles next the lake, the average breadth is about 80 feet, and the depth usually 10, but farther up it is rather narrower and shallower. The principal kinds of fishes to be found in this part of the river are, the pike, perch, braize, eel, and some trout toward Drymen bridge. A large extent of deep and excellent land, but in general only a few feet in elevation above the level of the lake, lies on each side of the river; and hence, crops are often injured or carried off by being overflowed with water; and in some parts it is useful only for meadow hay or pasture. Sometimes in winter, indeed, when the lake is at its greatest height, and the river is much swollen by heavy rains and the melting of snows, this plain to the extent of some hundreds of acres, would have all the appearance of an extensive lake, were it not for some trees standing up from the water. The better part of the land in the parish seems to lie along the Endrick, and from Ross southward to the boundary at Blairnyle.

II.—CIVIL HISTORY.

Land-owners.—The chief land-owners are the following: The Duke of Montrose, principal heritor in point of valuation, or valued rent; Mrs Macdonald Buchanan of Ross and Drummakill; John Buchanan, Esq. of Ardoch; R. D. Mackenzie, Esq. of Caldervan; and Robert Macgounie, Esq. of Mains.

Parochial Registers.—These consist of registers of baptisms, proclamations or marriages, minutes of kirk-session, and accounts of poor's money. The oldest book is a collection of detached leaves, perhaps fragments of several old books, which are now kept within two old boards, and contain entries of all matters connected with the management of the parish. The earliest date I have discovered in it is 4th April 1647. The next in point of antiquity is a book containing minutes of session, unsigned by the moderator or clerk, the first date of which is 29th January 1710, and the last 11th December 1771. No book for minutes of session has been kept from that date till 23d February 1834, the date of the earliest entry in the new minute book. The only minutes that have been kept during all that interval, and preserved till this time, are written on a few loose leaves: they do not exceed five in number, and are unsigned. The next in order is a register of baptisms, commencing 4th August 1731, which, with two other books, contains a continuous register of baptisms down to the present date. The

entries in these books are not always made according to the exact order of their date, and many children in the parish have not been registered at all. They cannot, therefore, be said to be regularly kept. The only book containing a register of proclamations or marriages, and preserved to the present time, has for its first date 15th November 1755, and contains a regular and continuous register to the present date. These, together with a book and some loose papers, containing accounts of money transactions relative to the poor's fund, form the entire records of church matters in the parish.

Modern Buildings.—The modern buildings in the parish of any consequence are the following : 1. Baturrich Castle, belonging to John Buchanan, Esq. of Ardoch, which was completed about five years ago. It is built on part of the ruin of the ancient castle of Baturrich, on the rising ground about half a mile from Loch Lomond, near the western corner of the parish ; and from it, there is a very fine view of the lake, beautifully studded as it is with its numerous wooded islands, and also of the whole vale of Leven to the river Clyde ; 2. Ross Priory, to which a considerable addition was made about thirty years ago, by the late Hector Macdonald Buchanan, Esq. and which is now the residence of Mrs Macdonald Buchanan. It is also beautifully situated on the south-east bank of Loch Lomond, at about two miles distance northward from Baturrich Castle, and surrounded by a lawn but little elevated above the level of the lake, and finely interspersed with a variety of trees, some of which are old and of great size and beauty. The house faces the north-east, and an avenue of about three-quarters of a mile in length leads to it in a straight line from the south-east, shaded on each side by a row of fine tall oaks, beeches, &c. ; 3. Catter House, though not a modern building, I may here mention, as it is an admirable old mansion-house, and it is now the residence of Stewart Jolly, Esq. factor to the Duke of Montrose. It is finely situated on an eminence near Drymen Bridge, on the river Endrick, and faces the north. From it there is a splendid view of the lawn and woods around Buchanan House, belonging to the Duke of Montrose, and westward across Loch Lomond along the numerous windings of the slowly flowing Endrick.

There are two churches in the parish, viz. the parish church, which was built in 1813, and the Relief meeting-house, built about 1774. There are three meal mills in the parish ; Catter mill, Mavie mill, and Aber mill. There are no manufactories.

III.—POPULATION.

Amount of population in 1801,	879
1811,	898
1821,	1008
1831,	999

The population at present, as ascertained by the minister in visiting the parishioners, amounts to 950

Number of families in the parish in 1831, 175
 chiefly employed in agriculture, 80
 trade, manufactures or handicraft, 27

The number of illegitimate births in the parish during the last three years is 1.

IV.—INDUSTRY.

Agriculture.—There are in the whole parish about 660 imperial acres under wood, besides a great many detached trees in hedge-rows, fences, and elsewhere ; of which the following is a statement :

On the lands of the Duke of Montrose, all planted by the late Duke,	180 acres.
On those of Mrs Macdonald, including the wooded islands of Craeinch and Torrinch, Lochlomond,	230
On those of John Buchanan, Esq. of Ardoch,	200
On those of R. D. Mackenzie, Esq. of Caldarvan,	40
On those of the other proprietors,	10
Imperial acres in all,	660

The average rent of land is 18s. per acre.

The moorland part of the parish grazes only about 500 sheep, which are of the black-faced or Highland breed, and a few cattle of the Argyleshire breed. A few sheep of the Cheviot or Leicester sort are sometimes kept in low parks. The cattle on the low grounds are of the Ayrshire breed. Considerable attention has been paid of late to the improvement of all these sorts of cattle.

Part of the lands, being the inferior sort, is kept in cultivation by being four years under pasture, and two under oats ; but the better part of the land is cultivated by a six years' course of crops and pasture ; thus, 1st, green crop ; 2d, grain crop ; 3d, hay ; 4th and 5th, pasture ; and 6th, oats. Considerable attention has been paid, of late years, to the improvement of inferior or waste lands, in some parts of the parish, by the new modes of draining, &c. ; but a considerable part, perhaps more than a third part of the arable land, is incapable of a high state of improvement under ordinary tenants, either on account of the shallowness or peculiar qualities of the soils ; from rocks, chiefly of sandstone, want of proper declivity, or other obstacles to thorough draining ; or from the difficulties there are in driving manure and other commodities from and to distant parts and markets, owing to the bad roads through the parish, which are kept so chiefly from the want of proper metal or materials

within any ordinary distance for repairing them. Yet, in spite of all these difficulties and hindrances, a spirit of industry and enterprise, now observable among a great proportion of the agriculturists, is leading them on to many useful improvements.

V.—PAROCHIAL ECONOMY.

There is no village in the parish : there are not even four dwelling-houses in it closely contiguous.

Means of Communication.—Neither is there a post-office ; but the penny-post from Dumbarton to Drymen passes daily through the parish. The Dumbarton and Drymen turnpike-road passes through it from south-west to north-east for six miles ; and the Drymen and Glasgow road passes through the east end of it for about one mile. A public coach travels from Drymen to Glasgow, and returns in the evenings on Wednesdays and Saturdays in winter, and on Mondays additional in summer, and there are two carriers, one from Buchanan, and another from Drymen, who pass through this parish once a-week on their way to Glasgow on Tuesdays, and return on the Wednesday.

The only bridge worth mentioning is that across Endrick, the boundary of the parish, on the road to Drymen, which is an old one containing four arches. The fences are generally thorn hedges or stone dikes. The hedges in inferior soils are generally bad and insufficient for fences, and require to be frequently repaired with other materials ; but in the better soils there are some good thorn fences. The stone dikes are, in some places, new and good, but in others old and in a falling state, and insufficient for fences. I think that I may state generally, that their condition is somewhat worse than in most neighbouring parishes. There are no canals, railroads, or harbours.

Ecclesiastical State.—The parish church is situated almost at the northern extremity of the parish, and is not convenient for the greater part of the population, as its distance from the eastern extremity is two miles, from the western by the roads six miles, and from the southern, five miles. The church was built in the year 1813, and is at present in a very good state of repair. There is no benefaction on record except one from Mr Maurice Carmichael, of Bromley, to the poor of the parish, amounting to L. 50 Sterling, and made by him in the year 1790. The church affords accommodation for 400 sitters. The sittings were divided among the heritors, as is usual in all parish churches in the country, and they are occupied by their respective tenantry and others, free of

expense. The communion table seats, containing 40 sittings, are free to any who may choose to occupy them. The manse was built in 1804. It has since undergone some trifling repairs at different times; and it is now, on the whole, in a good state of repair.

The glebe consists of 7 imperial acres, and may be worth L. 1 per acre of yearly rent.

The stipend consists of 96 bolls meal; 64 bolls barley; and L. 48, 10s. 10d., which includes L. 8, 6s. 8d. allowed for communion elements. There is, as before said, a church belonging to the Relief body, to which I believe there are 20 acres of land attached, which, with collections and seat-rents, make up the minister's stipend.

There are 60 families, and 240 persons of all ages attending the parish church. There are about 100 families, and 400 persons of all ages attending the Relief meeting-house in the parish, and other Dissenting places of worship out of it. The parish church is, on the whole, well attended, and, so far as I can learn, the Dissenting one also.

It will be observed from the above statements that the number of Dissenters in the parish considerably exceeds the number of churchmen. And it is perhaps proper here to state, that this was caused about sixty-five years ago, by an unfortunate difference arising between Lord Stonefield, who was patron at that time, and the people, regarding the settlement of a minister; when the people taking offence, left the Established Church, and built for themselves a meeting-house in connection with the Relief body, to which the greater number adhered; while others went to Dissenting chapels in other parishes. And owing to that unhappy disagreement, and perhaps to the Dissenting chapels being more conveniently situated for the bulk of the parishioners, the greater part still continue Dissenters, though after the lapse of sixty-five years, and the ministry of two incumbents in the parish church. It is right, however, here to state, that a disposition to return to the church has lately shown itself among some Dissenters, and that the number of churchmen has been for some time increasing. As a proof of the correctness of this statement, I may mention, that, in 1835, the roll of male heads of families communicants contained 41 names, whereas in 1838, it contained 51, which shows an increase of 10 names in three years.

There are about 150 communicants in the Established Church.

The amount of yearly collections for the poor averages about L. 26, and about L. 7, 10s. for religious and charitable objects.

Education.—There are three schools, one parochial school, no endowed schools, except the parochial one, and two unendowed schools. The salary of the parochial schoolmaster is L. 31 per year, and the school-fees amount to about L. 25. The amount of school-fees to each of the other two teachers may be somewhere between L. 10 and L. 15.

Poor and Parochial Funds.—There are 10 paupers constantly on the roll, who receive the average sum of 16s. each per quarter, or L. 3, 4s. per year; and besides these, there are several families who, though not upon the roll, receive occasional relief. The collections in the church, as formerly stated, amount to L. 26 yearly, and the mortcloth and proclamation dues to L. 4; which, together with the interest at four per cent. arising from the sum of L. 300, lent on bill from the poor's fund, and the interest from L. 40, deposited in bank, amount to about L. 43. No disposition to consider it degrading to seek parochial relief is shown, except in rare cases. In this parish, as in most others in Scotland, that spirit seems to be fast wearing out.

Library.—A parish library, got up by means of subscriptions and donations of books from heritors and others, was instituted in this parish in June 1838, and is kept in the parish school, the schoolmaster being librarian. It is under the management of the kirk-session, and now contains 160 volumes.

Fairs.—There are two fairs held within the parish, one for horses at Craftammie, on the second Tuesday of February; and another, chiefly for milk cows, at the farm of Ardoch, on the last Thursday of April.

Alehouses.—There are eight taverns or alehouses, whose injurious effects on the morals of the people appear in some instances, though not to any considerable extent.

Fuel.—Fuel consists chiefly of peats and coals. Peats are cut from some mosses within the parish, and sold at the rate of 3s. for an ordinary cart. Coals are carted from Garscube, Kilpatrick, or certain places on the river Leven, and the price has varied for some years between 9d. and 1s. per cwt., including cartage and all other expenses.

July 1839.

PARISH OF BONHILL.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND Ayr.

THE REV. WILLIAM GREGOR, MINISTER.*

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—CHALMERS supposes that the name of this parish is a corruption of the Gaelic word *Bogh n' uill*, signifying foot of the rivulet. The oldest spelling is Buchnull, which occurs in the fourteenth century. Afterwards, it was long spelled Bulhill, and subsequently Bunnnull.

This parish was enlarged in 1650, by the annexation of Tullichewen, Stockragent, Cameron, and Auchendennan, from the parish of Luss; and of Balloch, Milton, Blairquhois (now Westerton), Ballagan, and Ledrestbeg, from the parish of Kilmaronock. The annexation was effected by the Commissioners for the Plantation of Kirks, at the desire of the heritors and the presbytery. Before this event, there had been only 120 communicants in the parish.

Boundaries, Extent, &c.—Bonhill is bounded on the north and north-east by the parish of Kilmaronock and Loch Lomond; on the east, by the parish of Dumbarton; on the south and south-west, by the parish of Cardross; and on the west by Luss. It is $4\frac{1}{2}$ miles in length, and 4 in breadth, forming nearly a square.

Hydrography.—The river Leven issues from Loch Lomond at Balloch, and falls into the Frith of Clyde at Dumbarton Castle, after a course of about nine miles in length. The tide comes up the river more than a third part of its length, and the stream is navigable in its whole extent. It produces excellent salmon, and a variety of other fish.

Remarkable Ash Tree.—This large tree stands in the churchyard, and has been long regarded as one of the most remarkable of the species in this country. In the year 1768 it was measured by Mr Beevor, who found it to be 16 feet 9 inches in circumfe-

* Drawn up from notes furnished by a residenter in the parish.

rence at the height of 5 feet. In September 1784, according to Dr Walker, it measured 17 feet 9 inches ; but at the height of one foot above ground, it was found to be no less than 33 feet in girth. At the height of six feet the trunk divides into three great arms. In the *Agricultural Survey of Dumbartonshire*, published in 1811, the circumference of the trunk where smallest is said to be upwards of 18 feet. This venerable tree is going rapidly to decay. The trunk is hollow, and the branches, though clasped, may soon be expected to give way. It still, notwithstanding, annually produces luxuriant foliage.

Another remarkable ash-tree, of even greater dimensions, is also to be seen in this neighbourhood. It is thus described in the edition of *Gilpin's Forest Scenery* by Sir Thomas Dick Lauder, published in 1834 : " Near the house of Bonhill, in Dumbartonshire, there is a very ancient and remarkable ash. This tree has been surrounded by a sloping bank of earth to the height of about three feet. A little above this artificial bank, or about four feet above the natural surface, it measured 34 feet 1 inch ; at the height of four feet above this bank, it measured 21 feet 3 inches, and at the height of twelve feet from the ground, immediately under the three great arms into which it divides, 22 feet 9 inches. At the junction of these arms, the leading trunk had, above a century ago, been broken, and in consequence of which the tree has become hollowed. One of these arms measured 10 feet 4 inches, another 11 feet, and the third 12 feet in girth, and yet they seem not to have been original branches, but only pollards formed after the trunk was broken over. Many years ago, the tree being hollowed and opened on one side, the opening was formed into a door, and the other part of the tree scooped out. In this way a small room, 9 feet 1 inch in diameter, was formed within the trunk. Its roof is conical, and 11 feet high. It is floored and surrounded with an hexagonal bench, on which eighteen people can sit, with a table in the middle ; and above the door there are five small leaden windows. Though the tree has decayed in the heart, it has continued to live in the bark, and to form a great arch of new wood. The whole trunk, which is a vast mass, is thickly covered with fresh vigorous branches."—Vol. i. p. 264, 265.

II.—CIVIL HISTORY.

The whole lands in the parish formerly belonged to the family of Lennox ; but in the fifteenth century the Darnley family by marriage got one-half of the estate and the titles. The other

half was afterwards divided between the families of Napier and Gleneagles. Darleith was the property of the Darleiths, who are said by tradition to have been hereditary followers to the Earls of Lennox. The family having gone to decay, the estate was purchased by Mr John Zuil, writer in Inverary, whose attachment to the Covenant, and sufferings in its cause, are commemorated by Wodrow.

Antiquities.—There are very few remains of antiquity of any interest in this parish. At Auchenhelgish, on the lands of Auchindenanrie (now Belretiro), was an old burying-ground, which was used within the last century. It probably belonged to a place of worship which gave name to the field, and the ruins of which are still pointed out when the lake is low, at a short distance from the shore, having been overflowed by the gradual encroachment of the water.

A correspondent writes, that he “should be inclined to doubt the existence of a church or any place of worship on the island or rather the shore off the point of Auchenhelgish. In the dry summers of 1825 and 1826, the alleged site was examined with great minuteness, the lake being very low at the time, and a considerable part of the shore being uncovered; but we could not discover the slightest vestiges of any building or any thing in the shape of foundation stone or wrought mason work of any description. The church or chapel, it may be remarked, stood on the high bank, immediately north of the Scotch and silver fir trees on the side of the road, where it quits the shore of the lake at what is called Auchenhelgish brae, where I am told that one grave-stone is to be seen, and the appearance of the foundations of a building. A cross or other similar erection may have been placed on what was probably, in former times, a low green island, such as the Aberetle is now; but which is now merely a shoal composed of large stones rounded by the attrition of the water, few or none being of any size. The gradual rise of the waters of the lake is quite undeniable. Witness the trees along the lower side of the road through the Belretiro property.

“There is a collection of ancient tumuli on the high lands of Sommer, on the edge of the moor, which has of late years been planted with birch and Scotch firs; the graves, of which there may be from twenty to twenty-five, within an oblong of 200 feet by 60, are of the usual description, fenced by rude and undressed stones. The covers have been mostly removed or destroyed. Some

forty or forty-five years ago, I have been told that an investigation of these having been made by my uncle, Mr James Smollett, bones and stone arrow-heads were discovered in them; but I have never seen any of these."

The castle of Belach (or Balloch) was the early seat of the Lennox family, and their charters are often dated from thence in the thirteenth and fourteenth centuries, before they resided at Inchmurrain. The site is still marked by the fosse, but no remains of building have been seen in our time. See as to this a note to the novel of the Spæwife by Galt. The only other family of note who anciently resided in this parish were the Lindseys of Bonhill. Their ancestors were knights in the reign of David II., and acquired their estate by grant from their relation, the Earl of Lennox, by whom they were also appointed foresters and tosheagers of the earldom. The male line failed soon after the Restoration, and the estate passed to Sir James Smollett, Provost, and representative of Dumbarton in Parliament, and afterwards a commissioner of the Union.

III.—POPULATION.

The population of Bonhill has rapidly increased since the establishment of the bleachfields and printfields, which now form its chief trade and industry. In 1755, from the returns made to Dr Webster, the population was 901; and in 1791, from a list of the inhabitants made up to 1st January in that year, the population amounted to 2310, of whom 562 were under ten years of age.

By the Government census of 1801, the population was			2460
	1811,		2791
	1821,		3003
	1831,		3874
Number of families in the parish in 1831,			780
	chiefly employed in agriculture,		172
	handicraft,		558

IV.—INDUSTRY.

The valued rent of the parish is L. 2180, 9s. 2d.

Agriculture.—The lands in this parish, as may readily be conceived from the large manufacturing population, are all cultivated according to the most improved methods. Furrow-draining has been adopted to some extent, and with the usual good effects. The subsoil plough has been but partially used, but in instances where it has been tried it has doubled the value of the land.

Horses, &c.—The horses generally used for agricultural purposes are the Clydesdale breed. The cows are chiefly of the Ayrshire

variety, and considered to be excellent for the purposes of the dairy.

The first printfield on the Leven was begun about the year 1768. At first the printing was almost entirely confined to handkerchiefs, and done by what was termed block-printing. Copper-plate presses were erected, and posterior to these, presses to be driven by water. Long before this time, (1728, 1729,) however, the parish had acquired some celebrity for its bleaching processes, from the introduction of workmen from Holland, and the establishment of bleachfields on the Dutch method. At the time the former Statistical Account was published, there were three printfields and four bleachfields in the parish. The number of these has since much increased, and both departments are simultaneously carried on in the same establishments. The print-works and bleachfields now in operation are as follows:

1. *Dalmonach and Ferryfield*.—At the print-works of Ferryfield there are employed two steam-engines of 10 and 14 horse power; and one water-wheel of 20 feet diameter, 7 feet broad, with a fall of 20 inches. The total number of persons employed is 416; of whom 203 are men, 121 women, and 92 children under twelve years of age. The amount of wages paid from 1st January till 1st July 1839, was L. 5395, 8s. 8d. At Dalmonach there are two engines, one of 10 horse power, the other of 16 horse power, and one water-wheel of 16½ feet in diameter, and 15 feet broad, with a fall of 26 inches. The number of persons employed amount to 565, of whom 252 are men, 169 women, and 144 children under twelve years of age. The wages paid for the first six months of 1839 amounted to L. 5667, 2s. 0d. In both these works there are eight printing machines employed, which can print from one to six colours at a time, and 1200 yards each in an hour.

2. *Dalmonach*.—The number of people employed at Dalmonach print-works in March 1835, was 899, of whom 604 were males, and 295 females.

3. *Levenfield*.—At Levenfield there is a water-wheel of 16 feet in diameter, 6½ feet broad, with a fall of 3 feet. The number of individuals employed are, 188 men, 97 women, 30 between twelve and fifteen years of age, and 100 children under twelve years of age, of the last of whom all can read, and 56 write. Amount of wages paid from 10th January to 10th July 1839, L. 4904, 2s. 10d.

4. *Levenbank Print-Works*.—There is a steam-engine of 15 horse power at these works, with a water-wheel of 22 feet diameter, and

a fall of water of 19 feet. The number of persons employed are, of men, 119, of women, 50, of children under 12 years of age, 52, in all 221. Amount of wages paid from 10th January to 10th July 1839, L. 3505.

5. *Alexandria Works*.—There is a steam-engine of 20 horse power at these works, with a water-wheel of 18 feet in diameter, by 6 broad, and a fall from canal of 15 inches. The persons employed are, men 192, women, 142, children, 104—all of whom can read, making a total of 438. The amount of wages paid to these from 1st January to 1st July 1839, was L. 5100. The amount of goods printed for same period was 1,310,400 yards.

6. *Dillichip and Milburn*.—At these works there is a steam-engine of 14 horse power, but which works up to 16. The diameter of Dillichip water-wheel is 15 feet 6 inches, the breadth 11 feet 3 inches;—the diameter of Milburn wheel, which is an over-shot one, is 23 feet, and the breadth 3 feet. The fall of Dillichip canal is about 12 or 14 inches. The number of persons employed at these works is 565, of whom 103 are women, and 63 children under twelve years of age. The operations carried on are bleaching, dyeing and printing; and the wages paid from December 22d to July 6th 1838–9, amounted to L. 6820. The goods finished during the same period, were 58,424 pieces of furniture and garments, 11,251 handkerchiefs and shawls, and 10,237 woollens; in all, 2,084,257 yards.

7. *Bonhill Print-Work*.—The mechanical power employed at this establishment is a steam-engine of 18 horses power. The number of persons employed are, men, 100; women, 32; and children under twelve years of age, 58, all of whom can read and write. The amount of wages paid from 1st January to 1st July 1838, was L. 2000, and the quantity of goods finished, 480,000 yards.

8. *Millburn Pyrolignous Works*.—These works were established in 1806; about 15 men are employed at them; and the products are pyrolignous acid, tar, pyroxilic spirit, kreosote, &c. A fine Prussian blue is manufactured at these works.

9. *Kirkland Works*.—At this establishment a steam-engine of 8 horses power is employed. The number of individuals employed in various departments, is 224. Of these, 83 are children under fourteen years of age. The operations carried on are, printing, bleaching, and dyeing. The amount of wages paid from 1st January to 1st July 1835, was L. 3106, and the quantity of goods

printed and dyed during the same period, was 23,400 pieces, of 28 or 30 yards in length.

Ecclesiastical State.—The church is mentioned in a charter of Donald, Earl of Lennox, about the middle of the fourteenth century. The patronage appears to have belonged to this family until the widow of Earl Duncan erected the collegiate church of Dumbarton in 1450, and endowed it with this church.

Number of families who profess to be connected with the Established Church, 592; Relief, 254; Old Light Burghers, 75; United Secession, 36; Roman Catholics, 12; Episcopalians, 4; Cameronians, 4; Baptists, 3; Unitarians, 2; Methodists, 1; Antiburghers, 1; Bereans, 1; of no profession, 28; total, 913. The Independents have since opened a place of worship, and now claim 80 members. Also, there is a considerable number of persons not householders, but lodgers, of whose religious profession little is known. Many of these are connected with some one of the various bodies.

It is understood that the kirk-session records were extant to a remote period in the time of Mr Gordon Stewart, when Mr Buchanan of Ardoch saw them.

Education.—There are 7 schools in the parish, two of which are parochial. The average amount of each of the parochial schoolmasters' salaries is L. 21, 7s., with L. 15 of school fees, and L. 7 of other emoluments, being the yearly worth of the dwelling-house, school-room, and garden. Two of the non-parochial schools are taught by females. About seven-eighths of the population inhabit the Vale of Leven, and are employed at the public works, bleachfields, and printfields: to these works the children are sent, in too many cases, at and under seven years of age; and any learning they get afterwards is at the week day evening and Sunday evening schools. (Abstract Education Inquiry, 1837).

Poor.—

The average amount of contributions for the poor for the three years 1835-36-37, was	-	-	-	L. 166	5	1
Of this sum, from church collections,	-	-	-	L. 99	16	3
Other voluntary contributions,	-	-	-	28	10	9
From mortifications, &c.	-	-	-	37	18	1
				— — —	L. 166	5 1

Benefit Societies.—The following are the societies at present established in this parish, viz. 1. Bonhill Old Friendly Society; 2. Bonhill New Friendly Society; 3. Levenbank Friendly Society; 4. Balloch Friendly Society; 5. Bonhill and Bal-

loch Union Friendly Society; 6. Bonhill, Levenbank, and Balloch Friendly Society; 7. Bonhill Village Friendly Funeral and Mortcloth Society. They are nearly all similar, and merely differ in the sum paid at the death of a member. The first three (1st, 2d, and 3d,) give the sum of L. 1, 10s. to the nearest relation at the death of a member, whereas the next three (4th, 5th, and 6th,) give L. 3 at death; also there is some trifling difference in their way of electing preses, &c. &c. The object of the 7th is to allow L. 5 and the use of the mortcloth to the nearest relation at death of a member, and each member (when the number of members exceeds 200), pays 6d. at the death of a member. Every male or female upon admission into this society must be above sixteen years of age, and under sixty; whose residence or employment must be in the village of Bonhill, and pay 1s. 6d. as entry-money. There are thus no less than seven benefit societies in the parish, all nearly similar in their purposes, for providing a weekly allowance to sick members, and a sum for the respectable interment of such as die. But, besides these, there exist smaller associations of a like kind among particular kinds of workmen; as block-cutters, block-printers, engravers, &c. And in cases of accident or sickness, liberal contributions are often raised. Scarcely a pay day passes without some such subscription.

There are no savings' banks in the parish.

Mechanics' Institution.—The Vale of Leven Mechanics' Institution was commenced in 1834, consequently has been in operation for five years.

The institution has not yet been able to erect a hall to itself, and consequently is obliged to deliver its lectures in any room, school, or church that can be most readily obtained.

The support of the institution is derived to a certain extent from the donations of the surrounding gentlemen, but chiefly from the fees paid by the students themselves; the fee paid for the whole course is only 2s. 6d. The course generally comprehends about twenty-six lectures, delivered, for the most part, on Saturday night, that being the most convenient for the working population here.

The annexed table will show the attendance and increase for the last five years:

Session 1834-5,	the number of students was	108,	at 5s. each.
1835-6,	do.	69,	at 2s. 6d.
1836-7,	do.	86,	at 2s. 6d.
1837-8,	do.	142,	at 2s. 6d.
1838-9,	do.	170,	at 2s. 6d.

From a careful calculation of the number of males above eighteen years of age, made in the year 1838, it was found that there were 1176 employed about the various print-works upon the water; out of that number only 109 were members of the Mechanics' Institution, that is, about one-eleventh of the whole—the remainder consisting of females and persons resident in the district.

In this district there are three pretty large villages within a mile of each other—namely, Bonhill, Alexandria, and Renton, the united population of which may amount to about 6000; out of that number last year, the attendance was 170, being equal to 35.29 of the whole. During last session a library of 160 volumes has been procured in connection with the institution.

Hitherto the institution has been much indebted to gratuitous lecturers, who, in all cases, have been left to choose their own subjects, the consequence of which has been, that the courses of instruction were more desultory and unconnected than the committee would have liked—an evil which they are endeavouring, as far as possible, to obviate during the ensuing session.

July 1840.

GENERAL OBSERVATIONS

ON THE COUNTY OF DUMBARTON.*

Name.—Dunbar or Dumbar, and Dunbarton or Dumbarton, have long been celebrated in “Scottish story,” as national fortresses of great antiquity and strength, and from analogy, might both be plausibly derived from the same Celtic radicals, *Dun* and *Bar*, which by interpretation mean a “fort or stronghold on a summit or height.” This is unquestionably the origin of *Dunbar* on the Frith of Forth, but the *Dunbar-ton* on the Frith of Clyde is supposed to be a corruption of *Dun-briton*, the “fort of the Britons,” also formerly called, according to Morris and others, *Alclud* or *Alclud*. In examining the Acts of Parliament published by authority of Government, we find the name frequently rendered *Dunbretane*, more frequently *Dunbertane* and *Dunbartan*, but latterly chiefly *Dumbarton* or *Dunbarton*, so that no conclusion can be drawn from “use and wont” in favour of either of the above etymologies. But be this as it may, the town and fort, which have given their name to the county, are of great antiquity, and evidently bear the impress of the language of the earliest inhabitants of these northern isles. This district is also occasionally known by the name of *Lenox*, which is a corruption of *Leven-ach*, “a field or district on the Leven,” by which latter term we are to understand not merely the water of Leven, but also *Loch Lomond*, formerly called *Loch Leven*, which stretches along a large portion of the eastern boundaries of the county, and also washes with its pure and limpid wave many parishes in *Dumbartonshire* to the south. The *Lenox* family, now extinct, but represented by the Duke of Richmond, derived their name from the same origin, according to the practice of our forefathers, who named great districts and great families after each other.

* Drawn up by the Rev. William Patrick, Hamilton

Extent, &c.—Dumbartonshire is situated between $55^{\circ}, 53', 30''$ and $56^{\circ}, 19', 40''$, of north latitude; and between $3^{\circ}, 54', 50''$, and $4^{\circ}, 53'$, of longitude west from Greenwich. On the east it is bounded by the counties of Stirling and Perth, but principally by Stirling, from which it is separated through a considerable portion of its extent, as far north as Elengavahana by Loch Lomond, above which the loch is surrounded by the county, including the farms of Doune and Ardeish on the east, which here march with Perthshire. Strathfillan in Perthshire is the entire boundary to the north, as Argyleshire is to the west, which last is separated from Dumbartonshire by Loch Long, from the Frith of Clyde to Arrochar. The boundaries on the south are Renfrew and Lanark, but principally Renfrew, from which it is separated by the estuary of the Clyde. These boundaries do not embrace the disjointed portion of this county, including the parishes of Kirkintilloch and Cumbernauld, which lie by themselves about six miles east of the main body of the county, bounding with Stirling on the north and east, and with Lanark on the south and west. The extreme length of Dumbartonshire from Kelvin bridge, at the south-east corner of New or East Kilpatrick to Inverarnan brook, at the north of the parish of Arrochar, is about 47 miles. Its breadth at the southern extremity from east to west is 24 miles; farther north it is 10; between Tarbet or Loch Lomond, and the head of Loch Long it is only about 2 miles broad, at Upper Inveruglass scarcely so much, and at the northern extremity the widest place is $9\frac{1}{2}$ miles. The detached parishes of Kirkintilloch and Cumbernauld include a district about 12 miles long from east to west, and from $2\frac{1}{2}$ to 4 miles broad. This isolated portion of the county contains $92\frac{1}{2}$ square miles, and the main body of the county 228—in all $260\frac{1}{2}$ square miles, and about 167,040 English acres.

Topographical Appearances.—The county of Dumbarton, taken as a whole, like the inhabitants scattered over its diversified soil and varied surface, is in a transition state, between highlands and lowlands. The scenery to the north and all along Loch Lomond is for the most part decidedly alpine, and exhibits all the varieties of the most enchanting and variegated of Highland landscapes. Although the parish of Arrochar, which forms the entire northern part of Lenox, be 15 miles long and on an average 3 broad, and contains about 48 square miles, still so mountainous and irreclaimable is its soil that not more than about 400 acres are ever sub-

jected to the plough. Here the majestic Ben Voirlich near the north-west extremity of Loch Lomond rears an alpine peak to the height of nearly 3300 feet above the level of the sea. The parishes of Luss and Row are also decidedly hilly. In the latter of these parishes there are two ridges of hills running north-east and south-west, intersected by a beautiful strath, (the highly interesting and picturesque Glenfruin), which stretches between them upwards of five miles. The height of Finnart, which is washed at its base by the sea, towers above it to the height of 2500 feet. In Luss, Ben Cruachansteane, Corafuar, Shantron, Beneich, Doune, and many others, attain great altitudes, some of them 3000 feet above the level of the adjoining seas. The lofty hills in Luss and Arrochar are strikingly and exquisitely contrasted with the wide expanse of the beautifully spread and pellucid waves, of the queen of lakes, the far-famed, and yet scarcely sufficiently admired Loch Lomond. Here savage grandeur, in all the towering superiority of uncultivated nature, is seen side by side with the very emblem of peace and tranquillity, an alpine lake, which the winds reach only by stealth, basking by day under the enlivening beams of the sun, but not subjected to the tidal attractions of the pale silvery moon. The parish of Roseneath, enclosed between two lochs or arms of the sea, like Argyle's Bowling Green, a little to the north of it, also adds much to the varied and attractive scenery of Dumbartonshire. This peninsula in itself is a very striking panorama. It consists principally of one ridge or height rising from the south in undulating wavy lines, till at Tamnahara, it attains an elevation of about 800 feet. From almost any part of the intersecting levels, beautiful peeps of sea, mountain, peaceful valley, or rich and arable expanses of fertile lands, may be obtained. Towards the south of the county, the parishes partake more of the lowland character, and rising, as most of them do, from the Clyde or Leven, and other intersecting streams, attain no great altitude, and present but few of the more striking irregularities of surface. To this remark, there are, however, many exceptions, and these striking ones, as for example, the rock of Dumbarton, which to the eye of the geologist presents the idea of a coprolite, after nature had exhausted herself by her more gigantic efforts to the north. The Kilpatrick braes, rising to the height of 1200 feet above the sea, are also a fine range of hills, intersecting a fertile and beautiful lowland country, affording from their summits some of the finest

prospects to be had in Scotland; and doubly interesting by combining a view of the summits of the wildest Highland hills, with the rich mercantile highly cultivated districts of Renfrew and Lanark—the workshops of the west of Scotland. No district in North Britain can boast of finer scenery than the county of Dumbarton, and certainly none is more variegated or more frequently visited, or admired by strangers.

Hydrography.—This county may truly be termed the land of “lakes and streams.” The muse of Smollet has made the Leven familiar to every classic ear; and Loch Lomond presents attractions to the eye with which the fervid anticipations of the most picturesque fancy are more than gratified. The landscape view of the district, however, comes only partially within the drier definition of statistics. In alluding to Loch Lomond, in all respects the most interesting sheet of water in Dumbartonshire or Scotland, forgetting the scenery, (or remembering to forget it,) we shall state only a few facts carefully and statistically ascertained.

This magnificent expanse of fresh water is, as near as can be ascertained, twenty-four miles in length, (not thirty, as in various popular publications,) and in some places six or seven miles broad. Its direction is nearly south-west and north-east, but rather inclined to north and south. The bed in general is a soft detrital mud, formed from the washings of the adjoining rocks. It is remarkable that where narrowest this lake is generally deepest; and, from there being little or no waste of rocks from currents, the inequalities of depth must be natural, and not from recent artificial acts of abrasion. In the south at Kilmaronock, Bonhill, and in part of Luss, the width is considerable, probably about seven miles. It tapers and twists gradually northwards to near Ardleish, like an eel, where it receives two rivulets of tiny dimensions. North of the Clachan of Luss, the lake is deepest and narrowest, but probably in no place does it exceed in depth 600 feet, namely, opposite Alt Gary, and in other places north of the above village it varies in depth from 396 to 480 or 540 feet. At Faskin it is 66 fathoms, northwards a little 80 fathoms; two miles north of Tarbet 80 fathoms, and at Alt Garry, as above, 100. In these northern parts, the lake never freezes, being too deep to attain an equal temperature. South of Luss, Loch Lomond is seldom deeper than 120 feet, but with this depth of water frost is seldom strong enough to congeal its surface. In some places, however, a fri-

gorific influence subsists between the islands and mainland, which produces a thick board of ice in severe seasons.

The waters of the lake, although much too limited to be affected by tides, are not stationary. At the time of the great earthquake at Lisbon, November 1st, 1755, a singular commotion was observed in this lake, which shows that its foundations are deeply set, and are connected with secret and distant correspondents. Its usurping powers at present have evidently a tendency to encroach upon the land. In some places the ruins of the works of man have been overtopped by the waters of Loch Lomond; and the stepping-stones across the channel of the Falloch, at the north end of the Lake, are now below the surface of the water, many feet, even in the greatest droughts. The effects of heavy rains or the melting of snow are not insensibly felt; affecting the water level in some instances to the amount of five or six feet. In droughts the decrease of water is equally perceptible. North of Luss, the banks of the lake are often lofty or precipitous; but south of that village they slope gradually to the shores of the lake, and flatten down almost to a dead level. The family seat of Camstradden, mentioned by ancient writers as an island or peninsula, with an house and orchard; has been completely overwhelmed, and exhibits only a cairn of stones when the water is very low. A number of headlands or Rosses, especially along the southern banks, at once enliven and diversify the scene, which, added to the islands scattered over the surface of the lake like spots on the sun, give a peculiar character to the scenery of Loch Lomond. The principal islands of Loch Lomond in this county are Inch-murin, Inch-lonaig, Inch-tavanach, Inch-moan, Inch-conachap, and Inch-galbraith, with nine other islets of inferior size and less importance. The islands Inch-cailach, Inch-fad, Inch-cruin, For-inch, Cre-inch, Clair-inch, and Bue-inch, are in the county of Stirling. The Tom-na-clag in Inch-tavanach, the yew trees and deer park in Inch-lonaig, added to the circumstance of both islets being used as "temperance hotels," for the reclaiming of confirmed drunkards, add at once a moral and natural beauty to the scene. This fine sheet of water empties itself by the river Leven, which pursues the same direction as the lake itself into the Frith of Clyde, after a sweet and richly varied course of about seven miles. Its waters, like those of the loch, are extremely pure, and are equally well fitted for culinary or manufacturing purposes. To the traders of Glasgow they are invaluable, and

have invited hither many extensive bleaching and printing establishments, such as those of Bonhill-field, Bonhill-place, Leven-field, Leven-bank, Kirkland-field, Dalmanoch-field, Dalgohorn, Cordell, &c. The same properties have rendered the Leven an equally eligible situation for the scaly tribes," many species of which

" Cut with their golden oars the silver stream."

Smollet in his beautiful ode to Leven water particularly alludes to its watery tenants,

" The scaly brood,
In myriads cleave the crystal flood ;
The springing trout in speckled pride ;
The salmon monarch of the tide ;
The ruthless pike intent on war ;
The silver eel and mottled char."

There are besides Loch Lomond, eight or nine small fresh water lakes in Dumbartonshire, but none of them of much importance. Loch Sloy, in Arrochar, upwards of a mile long and a quarter of a mile broad, is interesting as having been at one period the rendezvous of the clan Macfarlane, whose slughorn, or war cry, was " Loch Sloy," which in Gaelic signifies the " lake of the host or army." There are also two considerable lochs in Old Kilpatrick ; two also at Fannyside, in the parish of Cumbernauld, between which a new public road, projected and accomplished by that indefatigable road-maker, the Honourable Admiral Fleeming, now passes.

The river Clyde, on the southern boundary of the county, is not more beautiful than lucrative to all the districts which its waters intersect or touch upon. At the head of Loch Lomond the waters of Falloch, Inveruglas, Douglas, and Linnhe, are " brisk bratling" mountain streams, exhibiting in many places small but beautiful cascades. The Kelvin water is part of Kirkintilloch parish, where it resembles a great ditch traversing a meadow, but at Garscube its banks are bold and elevated, and continue to be highly interesting, till its embouchure in the Clyde at Partick, two miles below Glasgow. Gareloch and Loch Long are two very interesting arms of the sea to the west of the county. Gareloch, i. e. the " short loch," is a small sheet of salt water, running nearly N. W. and S. E. Like Loch Lomond, it is not more than six miles long, and has an average depth of about 130 feet, lying on a fine stiff blue clay, excellent for the anchorage of vessels. Loch Long is a more extensive arm of the sea, running nearly N. E. and S. W., approaching Loch Lomond to the north and receding from it to the south.

It is upwards of twenty miles long, and in some places very deep. Its immense depth gives to the waters a dark blackish colour, in some degree heightened by the hills which skirt it on either side. The scenery at the opening of Loch Goil and about Arrochar is peculiarly bold and striking; and from Barmman and Tamnahara, in Roseneath, it is of a character, perhaps, scarcely equalled even in the panoramic assemblage of nature's gifts in this highly favoured district. Beautiful streams and lakes of less note are plentifully scattered over the face of this county; and springs of wholesome water gush out in liberal profusion for the use of man and beast.

Geology.—The geology of this district presents a suite of rocks from the oldest strata, mica-slate, to the limestone and coal formations. The oldest formations are to the north, and the newest in the south and south-east. The generally predominating rock where the primitive strata prevail is mica-slate,—a formation which lies immediately above the gneiss, and into which it insensibly passes. This mineral here, as in the neighbouring districts, and throughout the greater portion of the Highlands of Scotland, presents a distinct and uniform character. It is composed chiefly of parts adhering together without any intermediate cement, forming plates laid on each other. It is always stratified, and is mostly composed of mica and quartz, and occasionally felspar. Mica is very abundant, quartz also very abundant, and felspar scarcely perceptible. This rock forms the bulk of all the highest and most striking hills in the north of the county. The direction of the strata, as a whole, is nearly N. E. and S. W. At the summits and along the bases of the hills on both sides of Loch Lomond, the strata of mica-slate are distinctly observed cropping out in the usual direction, and in a position almost vertical, from which it may be inferred that this substance composes the mass of these mountain ranges. The mica-slate of this quarter is distinguished by an abundance of quartz, which in some other districts is generally in small quantity. Towards the summits of some of these mountains, the rock is remarkably penetrated by it, and exhibits veins and masses of every form, but not in regular beds. Indeed, quartz in many instances is so abundant, that it gives the mica-slate a whitish colour, resembling at a distance pure quartz. In some places these rocks are remarkably twisted, as at the foot of Glen Falloch, in Arrochar, where a beautiful section is brought to

view by the extensive cuttings for the new road which passes through Strathfillan. The dip of the strata at the head of Loch Lomond is generally S. E., and the course of the valleys by which the mountain ranges are intersected affect an easterly direction. The principal of these are Glenfroom, Glenfinlass, Glen-du-glass, &c.

In some places the mica-slate passes into talc-slate. This is especially the case between Tarbet and Luss, where mica-slate and talc-slate occur, with intersecting beds of greenstone and felspar porphyry. A singular dike of greenstone may also be observed at Knockderry, on the shore of Loch Long. The rock in which this intruded mass occurs is for some distance completely altered, so as to assume the appearance of chlorite slate.

Besides the mica-slate, this district is also intersected by a clay-slate formation, in a direction south-west and north-east, constituting a part of that great clay-slate formation skirting the Highlands, and found in so many localities. It is wrought in this county, in the well-known quarries of Luss and Camstradden. These slates are frequently traversed by veins of quartz, and abound with iron pyrites, which, in the clay-slate, is always found in crystals, which generally assume the form of cubes. It is particularly worthy of remark, that the islands at the south end of Loch Lomond, where they are only to be found, are in the direction of the clay-slate, and softer transition strata. These islands themselves are formed of the more durable varieties of rocks, while the clay-slate and softer rocks have been washed away, leaving the islets entire, affording a strong presumption that their present appearance is the result of extensive denudation. The lake itself is in fact only a great cavity in mica-slate, &c. at a low level, and consequently filled with water. The probability, therefore, is, that the whole of this remarkable cavity must have been filled up at some prior period by one great mass or line of strata, which, being of a softer structure, and more liable to the wasting effects of air and water, has been gradually broken or worn into its present shape.

The slates in this district may be generally termed quartz mica, and these constitute the greater portion of the primary district; clay-slate also abounds, and is found lying on the mica-slate. These rocks frequently pass into talc-slate, as already stated, and also into a sort of porphyritic mica-slate, thickly studded with crystals of quartz, and also, in some cases, there occurs a slate so much mixed with lime that it may be safely termed a limestone slate.

A little to the south of Camstradden slate quarry, and near to Ros-doe, the transition rocks succeed the primary stratified group in the shape of greywacke, and slaty greywacke of a peculiar composition, and alternating with the older formation to the north. This greywacke is very different in appearance from that generally found about Leadhills and the south of Lanarkshire. It seems, for the most part, to be composed of quartz, felspar, and clay-slate, cemented together with a basis of clay-slate, and frequently studded with blue quartz, common quartz, and crystals of felspar. Scarcely anything of the shape of greywacke-slate is to be found, and none of those remarkable alternations of greywacke and greywacke-slate, which abound in the south of Scotland, occur here. But the peculiar feature of these transition rocks is the presence of the black-limestone, not a vestige of which occurs in the greywacke of the south of Lanarkshire. This limestone, of a bluish-black colour, is to be found connected with the slate formation in Ardenconnel muir, and also in Glenfruin. The same superabundance of quartz as in the mica-slate is also another remarkable feature, to which we may add the total absence of flinty slate, or Lydian stone, and those frequent alternations with porphyry, resembling the *elvan courses* of Cornwall. With regard to the black limestone, it is allowed by Charpentier and others, that it is of later formation than greywacke and clay-slate. When nearest to the primitive formations, the black limestone is subordinate, while in the newest part of the transition formations, clay-slate is only found subordinate to limestone. This is exactly the position in which it occurs here, as may be seen in the localities above alluded to. It must be confessed, however, that the remark of Humboldt has much weight, namely, that the constancy of binary or tertiary associations, as connected with the transition formations, are of much more importance than the analogy which the succession of homonymous rocks presents. Thus he observes, that clay-slate and black limestone, clay-slate and porphyries, clay-slate and diorites, and greywacke, porphyry, and sienite, granular limestone, and anthracitous mica-slate, are observed to form geognostic associations in countries the most remote from one another. Some of these associations, as the clay-slate and black limestone, are to be found in Dumbarton, but not in Lanarkshire, while many of the others are found in the south of Scotland, but not in this part of it.

The mica-slate, including also chlorite slate, as on Gareloch above Row Ferry, on which these transition rocks rest, is an extensive formation, extending from the Mull of Cantyre, and including the islands of Isla, Jura, and Colonsay. It stretches along by the north of Loch Awe, where it meets with the granite of Cruahan Ben, it then passes on by Ben Lawers to the north of Loch Tay, and may be traced in a thin line as far east as Stonehaven. This rests again upon an immense deposit of gneiss, which extends to the north of Scotland, with patches of granite and of old red sandstone, here and there interspersed. The transition rocks here are part of a thin stripe of very inconsiderable breadth, running north-east and south-west, passing through the centre of the island of Bute, entering this county near the south-east end of Roseneath, crossing it by Ros-dee and the Pass of Balmaha it stretches away by Aberfoil, Callander, Comrie, south-east of Dunkeld, passes through Edzel, and terminates in the sea at Stonehaven. Bute is the south-western terminus of the minerals of which the county of Dumbarton is composed, and Stonehaven the north-east terminus. From the same point in the north-east, an extensive formation of old red sandstone, lying to the south, extends also from Stonehaven to the south of Bute, having Montrose, Arbroath, Dundee, Dunning, Stirling, and the town of Dumbarton standing on its southern extremities. Like the greywacke, this formation runs due north-east and south-west. As connected with Dumbartonshire, the old red sandstone group appears in the south-west of the peninsula of Roseneath, chiefly as a conglomerate south-east of the vale or dingle, which stretches from Campsail on the east to Portkill on the south-west. It passes north-east through part of Row parish, including the Cilliter range to the north-west, and the point of Ardmore, including Camis Eskin and Keppoch, and then stretches through Bonhill to Inch-murrin in Loch Lomond, and on to Balmaha and Buchannan. It constitutes, in fact, part of the lower basin of Loch Lomond on its south-east end. It forms also the link between the slaty rocks to the north, and the sandstone, lime, coal, iron, &c. to south; and may be said, in some degree, to be the basin of the Frith of Clyde. In many places along this noble estuary, there are striking proofs of the sea having once attained a higher level, and of having overtopped its present bed thirty or forty feet. This is strikingly exhibited in the remarkable promontory of Ardmore, south-east of the entrance to the Gare-

loch. This rock is of a circular form, composed entirely of old red sandstone conglomerate, containing many rounded water-worn balls, chiefly of quartz, very much resembling the breccia of the Lanarkshire formations. It is about forty feet high, and seems left as a pillar to mark the modern subsidence of the waters which once surrounded it. The same conglomerate is found in the Cilliter range, a little to the north. In other places this sandstone is of a greyish-blue colour, either coarse-grained or fine granular. The coarse-grained contains angular fragments and rolled masses of quartz, felspar, greywacke, and clay-slate, often so large, as in the above instances to constitute conglomerates,—the fine granular, in some varieties, with a base, in others, with a cement of clay, is chiefly composed of quartz, felspar, and mica, minutely aggregated. This formation has, in all respects, the characters of old red sandstone, approaching to greywacke, and very much resembles the old red sandstone of Lanarkshire. In some places, jasper is found in considerable abundance; and in one place, north-west of Cilliter, a dike of jasper of a coarse hard quality occurs. On the estate of Camis Eskin in Cardross, the old red sandstone contains traces of limestone, sometimes pervading the rock as a sort of base, as above Lanark in a neighbouring county, or more frequently in the form of contemporaneous veins.

Proceeding southwards, and above the old red sandstone, we have, in some places, a reddish sandstone, evidently not of the old red sandstone formation, and in other places a sandstone of a warm cream colour, easily chiselled, but hardening by exposure. The author has paid much attention to these formations on the borders of the old red sandstone, and has no doubt but that they are analogous to apparently similar formations in the upper ward of Lanarkshire. Yellow sandstone, of the same sort as is found in Dumbartonshire above the old red sandstone, occurs in Lanarkshire abundantly in Wiston parish, also on Kennox Water, Douglas, and near Monk's-head, Lesmahagow. It usually lies in both counties in thick plies, not far above the conglomerate, and immediately connected with the lower limestones. This yellow sandstone in Dumbartonshire extends, perhaps, as far as Netherton Garscube in New Kilpatrick, not in an uniform mass, but, as it were, incidentally. Above these rocks, limestone and coal, shale and small beds of ironstone connected with the lower limestones occur. These metals, which are wrought with so much advantage

to the proprietors and public, do not exist to any great extent in this county. With regard to the geology of the two detached parishes of Cumbernauld and Kirkintilloch, as full a description as circumstances would permit is given of that part of Dumbartonshire, under the article Kirkintilloch. These parishes, however, although about five or six miles removed from the body of the county, are connected naturally with it in the geological features of its south-eastern extremity. Both form part of the limestone series, or lower parts of the coal formations. In the middle and lower wards of Lanarkshire, the coals above the limestone form the great mineral wealth of that county; but none of the same sort of minerals occur in the county of Dumbarton, unless it be at Garscube, in the south-east corner of the parish of New Kilpatrick. The limestone coals are wrought below those at Lawmuir and Castlehill, at a depth of about thirty fathoms. The natural connection of the parishes of Kirkintilloch and Cumbernauld with the county of Dumbarton are better exhibited by the expansive *suite* of their mineral products, than by acts of Parliament and parchment charters. The great link indicated by nature between these two districts is the *calm limestone*, so fully alluded to in the account of the parish of Kirkintilloch, extending from near the House of Cumbernauld, westward through the conterminous counties of Lanark and Stirling, onwards to Old Kilpatrick at Duntocher. At this latter place, the property of Mr Dunn, the *calm limestone* is at present wrought in a pit of about thirty fathoms. Here the coal and limestone are each about 4 feet 9 inches, with but little separation. The coal is of a caking quality, and is first wrought stoop and room, after which the limestone is blasted. The limestone is mostly burned in old clamp or sow kilns, improved as much as possible by air pens, carried up the sides and ends, and stocked with brushwood. Draw-kilns save one-half. The miners are paid about 6s. per heap of five tons. One ton of coal is required to burn thirty-two bushels of lime, equal to about two of lime for one of coal. The lime is sold at 15s. per chalders of shells. The men employed in filling the kilns are paid per day; but the burning alone costs about 1s. 4d. per chalders. The coals at Garscube dip south-east at an angle of about 8°. The chief alternations of the strata are slate-clay, sandstone, clay ironstone, and fakes.

Unstratified Rocks.—These are chiefly the trap of Dumbarton Castle and the Kilpatrick Hills, and certain beds of felspar por-

phyry found among the older rocks of mica-slate. There are also dikes of trap and porphyry both in the mica-slate and greywacke. The Kilpatrick braes form the most interesting features in this district connected with the igneous formations. These beautiful hills range nearly east and west, and form a sort of continuation of the Campsie Fells, from which they are separated by the straths of the Blane, and the Allander; while on the west they terminate abruptly in the remarkable eminence termed Dumbuck, a sort of mimic of the Dumbarton rock. These hills are more or less connected with the parishes of Old and New Kilpatrick, Dumbarton, Bonhill, and Kilmarnock. They consist chiefly of greenstone, amygdaloid, trap-tuff, wacke, and basalt, incumbent on alternate strata of slate-clay and limestone to an unknown depth. Columns of basalt are found at Auchintorlie, also in the Glenarbuck grounds, and near Craigton. There is also in one part of the hills what seems to have been the remains of an extinct volcano. The castle rock of Dumbarton, like the beautiful and romantic Kilpatrick braes, is composed of various sorts of trap. It forms the southern point of the parish of Dumbarton, and stands on a small peninsula at the junction of the Leven and Clyde. Like another remarkable hill, (Parnassus,) this rock has two summits; that to the west being highest, or about 206 feet above the level of the sea. The trap of these formations contains a great many of those aluminous silicious products, which constitute the zeolite family. The principal species are the mesotype of Hauy, and the Prehnite. Besides these there are other new species, such as Thomsonite, Hewlandite, &c. A rare mineral, named Edingtonite, in honour of Mr Edington of Glasgow, occurs associated with the Thomsonite. The sulphate of barytes has also been found; but no metal seems to accompany it. This district is rich in mineral products.

The trap of Dumbartonshire is part of that irregular mass which extends in length from St Andrews to Largs, and from Dunbar to Ayr, and in breadth from Stirling to near Peebles, including the limits of the great coal-field extending from the German to the Atlantic oceans. This trap in Dumbartonshire occurs only among the limestone which lies at the bottom of the coal-fields.

The felspar-porphyry in the mica-slate generally runs in dikes or masses parallel to each other. In some instances it effects a slaty structure, and seems to contain crystals of hornblende and pista-

cite, with small portions of chlorite, and occasionally common garnet and pyrites.

Organic Remains.—Connected with the limestones and clay ironstones there are various organic remains; but none except those peculiar to similar formations elsewhere. These are chiefly spirifers, productæ, terebratulæ, paludinæ, &c.

The sand deposits in the south of the county also contain various beds of petrified shells, particularly at Dalmuir, so fully alluded to by Mr Thomas Thomson in the Records of General Science. The geology of the eastern and detached portion of the county will be found under the article Kirkintilloch.

Meteorology.—As connected with the geology of the district, we may also mention the science of meteorology. The climate of a country depends much upon its alpine groups, its vales, and its forests, and the whole are materially influenced by their vicinity to the sea. There can be little doubt but that the broad stripe of coal and lime abounding everywhere, with great masses of iron in beds, balls, or disseminated, which extends from the Atlantic between Arran and the mainland, including the Frith of Forth, as far as the Bass and Fifeness, materially influences the climate of this portion of the west of Scotland. It is universally admitted that the winds blow from the Atlantic, or from a westerly direction, at least nine months in the year. This gives a sufficient cause for the direction of the winds, with the course of which the phenomena of rain is also intimately connected. The quantity of rain which falls along the coast from Greenock to Ayr has long been remarked to be much greater than in any corresponding district in Scotland. But the difference is not so much in the quantity of rain that falls, as in the number of days on which it actually rains. It is generally supposed that temperature, and rain, which is the creature of temperature, are intimately connected with those subtile and generally invisible agents, the magnetic or electric fluids. It is to the presence of these in one form or other that we owe the greater part of the phenomena of rain. If clouds then be of magnetic or electric origin, it is very possible they may have some connection with the attractive influences of the immense iron deposits which stretch in a north-easterly direction from Greenock to St Andrews, and from Ayr to Dunbar. The iron in the above deposits no doubt attracts the magnetic clouds, and these coming in contact with the high hills on the western coast, there precipitate their contents. The cause of the same

phenomena not happening along the iron-bound coast on the east, arises from the wind more seldom blowing from the east; but nine months of the year, as has already been stated, the winds are in a westerly direction, which accounts for the greater access of rain on the western coast.

Agriculture.—The north of the county is very narrow and mountainous; indeed, from Tarbet on Loch Lomond side, to Arrochar on Loch Long side, there is only a small isthmus of about two miles long, having great altitudes to the north and south. The shores of Loch Lomond are mostly sandy and flat, and towards the north occasionally rocky. The soil on the mountainous part of the parish is mostly light, and composed of the detrital parts of the mica-slate on which it rests. In the south-east of the parish of Luss, there is some flat land, especially along the lake, from the southern boundary of the above parish to Ross-dhu. Among the hills to the north there are also some beautiful straths, such as Glenfruin. The banks of Loch Long are mostly hill pasture, but on the Gareloch, cultivation has extended a considerable way up the sides of the hills which skirt it. Much arable flat land is also to be found at Ardincaple, and on the barony of Mil-lig. The parishes to the south and south-east of the county contain much fertile and valuable land, especially along the Leven, and throughout Kilpatrick Old and New. The soil, generally speaking, near to the streams of fresh water, along the Clyde, the Leven, the Endrick, and such like waters is the best. In the north, gravel with sand or gravelly loam mostly prevail; in the more fertile parts of the district, fine black loam is a prevailing soil. The soil and surface of Dumbartonshire may be stated as follows:—

	English acres.
Deep black loam, - - - -	6,050
Clay on a subsoil of till, - - - -	30,970
Gravel or gravelly loam, - - - -	25,220
Green hill pasture, - - - -	3,750
Mountains and moors, - - - -	99,400
Bog, - - - -	720
Islands in Loch Lomond, - - - -	930

Total English acres, 167,040

The landed properties in this shire, not large in itself, frequently occupy a large surface, while they yield but a small return in produce. The proprietors are few, not exceeding 150, exclusive of feuars and portioners in towns, whose number does not exceed 400. The rental of the highest heritor is only about

L. 4500. The farms in some places do not exceed 20 or 30 acres in extent, but in some instances they amount to 600 or 800 acres. The smaller farms are occupied by smaller tenants, miserably fed, living upon land over-cropt and miserably cultivated. In the best parts of the county, the cultivation equals the best style of agriculture known in the west of Scotland. In the north, the average rental of arable land is L. 1, 10s. per acre, the average grazing of an ox or cow L. 2, and of a sheep from 2s. 6d. to 3s. A little farther south the price of grazing is somewhat higher; but the rental of cultivated land is much the same. The Highland breed of cattle is grazed on the hilly pastures. The milch cows on the low grounds are mostly of the cross breed between Highland and Ayrshire, and on the low and sheltered land pure Ayrshire. The indigenous horses are of a small size between the cart-horse and the Highland poney, combining the faults and blemishes of both. The prevailing breed of sheep are the south of Scotland black-faced sheep on the hill pasture, and occasionally the Cheviot breed on the low grounds, with some pets of the English breeds.

In some places farther south still, the general character of the husbandry is improving, chiefly by inclosing and draining on the modern system. Nearly the whole of the cultivated ground is inclosed by hedges and stone dikes, and waste lands have in some places been reclaimed to a considerable extent. Within these few years a great deal has been done in the freeing of the land from moisture, by the modern improvements in draining. But much yet remains to be done, before the parish be greatly improved in this way. In the better cultivated places, the average rental of land is L. 1, 15s. per acre in the higher and wilder parts, and from L. 2 to L. 2, 10s. and L. 3 in the more fertile grounds. On pasture farms, the average rate of grazing a cow or ox is L. 3, and near towns and villages, L. 5 are taken for a milch cow for the season, and about 8s. for a sheep.

The husbandry in the south-east of Dumbartonshire includes a good deal of green cropping, and in the best places with a six years' shift; namely, 1. oats; 2. potatoes, or a little turnip; 3. wheat with rye-grass and clover; 4. hay; 5. and 6. pasture. In most instances, however, no regular rotation is observed; and the practice of taking two white crops in succession is still in too common use.

Wages.—The average wages of the best ploughmen is about

L. 9 per half year, which is at the rate of 1s. per day; the best dairy maids have seldom more than 6d. per day, or L. 4, 10s. per half year. Inferior servants have wages at a lower rate. If meal be reckoned at 1s. 6d. per peck, the food of a male servant will cost his master L. 7 or L. 8 more, so that his whole charge will be about L. 26 per annum; and, allowing L. 4 more for board and lodging, about L. 30. This is nearly at the rate of a labourer's wages at 1s. 8d. per day upon an average through the whole year. This may appear a small sum, but it is perfectly sufficient for the condition of those who enjoy the pure physical necessities of life, without any superfluity.

Manufactures.—The two great sources of improvement in this as in neighbouring districts are chiefly attributable to two circumstances: 1. The growth of the trade of Glasgow, Greenock, and Paisley, and the increase of their wealth, industry, and inhabitants, have supported the prices of corn and cattle for many years past; and it is to be hoped for the interest of this county, and of Scotland at large, they will not for many years, at least, much diminish. 2. The great and constant employment at present given to the lower classes of our industrious inhabitants, throws ready money into their hands, with which they go to market, and paying down, purchase at the lowest rate. Formerly they took from landlords, farmers, and manufacturing employers, goods and the means of subsistence upon the credit of their future services, which by the good was granted as an act of charity, by the bad as a most usurious and oppressive loan. A great change, however, took place on the introduction of manufactures on a larger scale than formerly upwards of fifty years ago, when regular fair wages for labour were first introduced. So early as 1728, two public bleachfields were established in this county, one at Dalquharn on the Leven, and another at Cawesser on Loch Lomond, at both of which Dutch bleachers were employed. In 1810, there were nine bleachfields for whitening cotton goods. The gross value of the works was about L. 14,000; they employed about 150 men and women, whose wages amounted to near L. 3000 per annum, and consumed about 1800 tons of coals. There was also a field for bleaching linens, which employed 30 persons, and consumed 1100 cart loads of coals per annum. There were then also other bleachfields for printed goods, in all employing 1700 hands, at a yearly amount of wages approaching L. 50,000.

The machinery was estimated at L. 140,000; and they con-

sumed annually 9600 tons of coals, worth L. 6000. The difference at the present period will be best seen by referring to the accounts of the respective parishes in which they occur. The same may be also stated as to the bottle-works, glass-works, and other public works in the county.

Population, &c. This county extends to about 260½ square miles, the valuation in Scots money being L. 33,327, 19s. The population in the following years was as under :

1801.	1811.	1821.	1831.
20,710	24,189	27,317	33,211

In the first ten years there is an increase of 17 ; second ten 13 ; third ten 22. The population of the twelve parishes at present is as under—

Arrochar in	1831,	-	560
Cardross, in	1831,	-	3566
Cumbernauld in	1831,	-	3080
Dumbarton in	1831,	-	3623
Kilpatrick New in	1831,	-	3000
Kilpatrick Old in	1831,	-	5879
Kirkintilloch in	1831,	-	5888
Luss in	1831,	-	1181
Roseneath in	1831,	-	709
Row in	1831,	-	2037
Kilmaronock in	1831,	-	999
Bonhill in	1831,	-	8674

Of its establishment as a shire, its past and present condition, &c.
—From the chartulary of Lennox, and several other records, it appears that there had been a judge or justice of Levenax in the reigns of William the Lion and Alexander II. In 1271, as appears from Hole's Sutherland, (ch. 1 p. 6,) Walter Stewart, Earl Menteith, the foul betrayer of Wallace, was Sheriff of this county, and constable of its castle. The parishes of Kirkintilloch and Cumbernauld were first detached from the sheriffdom of Stirling and annexed to Dumbarton by Malcolm Fleeming, father of Sir Malcolm Fleeming, first Earl of Wigton, as appears from the chartulary of Lennox (1, 38.) In the Acts of Parliament published by authority of Government, Dumbarton is not once mentioned in the reign of James I. During the reign of his successor James II. this shire seems to have come into greater notice. In August 1440, "the castell of Dumbertane, with the lands of Cardross, Roseneathe, the pensione of Cadzowe, with the pensione of the Ferme-Mill of Kilpatrick," seem to have been annexed to the Crown. About five years before this, Lord Erskine was in possession of Dumbarton Castle, and agreed to give it up "to the advice of the King and the three estates," upon his being "freely

entered into the Castell of Kildrummie." On the occasion of the marriage of James III. in 1467, James Douglas and William Arthursoun were appointed by the estates to uplift the tax in Dumbartonshire. At this time the Scots groat of the crown, which passed for 1s. 1d., was to pass for 1s. 2d., and the half groat at 7d. Item, the "auld Inglis grote to pass for 4d., and new grote of Edward for 3d."

In 1488 (temp. Joannes IV.) many of the western counties were in a very unsettled state, and the strong arm of the law was required to put down "thift, reff, and uther enormities." For this purpose the Lord of Montgomery is appointed for "Dumbertane, the Leuenax, Bute, and Arran." Lennox and Dumbarton are here mentioned as constituting separate districts. In the same year some attention seems to have been devoted to the trade of Dumbarton, "it is statut and ordanit that in all time to come all manner of schippis may come to such free burrowis as Dumbertane." In 1489, and for some years after, the Castle of Dumbarton was held by Robert, Lord Lile, and Malho Stewart, "agane our sovreigne lord," also the castles of Cruikston and Duchel, Lennox and Lile were confederated to revenge the fall of their late sovereign. They were finally routed at Gartalunan, near Tilly Moss on the Forth, after which Dumbarton Castle was besieged for six weeks and surrendered to the king. In 1503, it is statute that the "landis of Buchquhanane, Fyntres, Campsy, Strablane, Buthrane, Drymane and Inchcalesch," should be held as attached to the sheriffdom of Dumbarton, and that their inhabitants should appear at the "fef courts of justice" there. During the reigns of James IV. and V. Dumbarton was the chief naval station in the west. September 2, 1545, at the instance of Henry Lauder, Queen Mary's Lord Advocate, "Matthew Earl of Lennox, was sumond for certane poyts of tressoun and lese majestie at the croce of Dumbertane." This was for seizing 30,000 crowns with arms and ammunition sent from France for the use of the queen. Shortly after this period, renewed privileges seem to have been granted to the principal sea-ports in the west. In 1555 it is forbid to carry out of the kingdom "victuallis, talloun, or flesche," except that it "sal be leiful to the inhabitantis of the burrowis of Air, Irevin, Glasgow Dumbertane, and uthers at the west seyis (seas) to have bakin bread, browin aill, and *aquavite* (some spirituous liquor) to the ilis (isles,) to betour (or barter) with uther, merchandise, and this act to be extended to maisters and skipparis of sic veschillis, &c." Great

encouragement seems also at this period to have been given to the herring fisheries in Loch Fyne and in the western seas. In the same year it is stated, that the "hail burrowis of the west countrie, sic as Irevin, Air, Dumbertane, Glasgow, and uther burrowis has zeirly in all times bygane, resorted to the fishery of Loch Fyne and other lochis in the north ilis for making of herring and uther fishis." To encourage this trade, no exaction was made "except the payment of the fishers." Some of the greedy lawless lairds on Loch Fyne, however, raised a heavy tax or custom on every "last of maid herring,"—an impost very properly put down by act of Parliament. Between February 1547 and July 1548, the unfortunate Queen Mary was in safe keeping in the Castle of Dumbarton, till she was emarked in the French gallies and conveyed to France. She visited the castle again in 1563. During the troubles which followed her dethronement, the castle of Dumbarton, 1568, was in the keeping of John Fleeming of Boghall. On the 2d of April 1570 (not 2d May 1571 as stated by Chalmers,) the Castle of Dumbarton was surprized and taken by escalade. The principal actors in this affair were John Cunninghame of Drumquhassil, Matthew Douglas of Mains, Captain Thomas Crawford of Jordanhill. In the reign of Charles I. 1641, these seven parishes "Inchcalleoche, (Buchannan,) Drymen, Balfrene, Fintrie, Kilbirnie, Strablane, and Campsie, as settled by the 73d Act of James VI., and, for a long list of reasons given besides, were annexed to the sheriffdom of Dumbarton. In 1649, the parish of Kilpatrick was divided as at present. The title of the act is "Act in favours of the parish of Dumbartane anent the dividing the parish of Kilpatrick." The county of Dumbarton was particularly involved in Argyle's invasion in 1685. On the 11th June of that year, the Marquis of Athol, with 300 of the king's troops, engaged about 400 of Argyle's men, killed many of them, and put the rest to the rout, which obliged Argyle to make a similar march to Allangreg Castle, where he staid till the 15th of June, when he marched 6000 men to "Lennox in Dumbartonshire," and thence to Killearn, within four miles of Dumbarton. Here Lord Dumbarton, commander-in-chief of the king's troops, was within three miles of Argyle's army, who, when he saw Dumbarton's army so numerous and well-marshalled, at night made fires over all his camp, and, by the light of them, decamped and dispersed all his people to their respective habitations. The subsequent history of the unfortunate Earl is well known. He was taken by a private trooper in the water of Inch-

innan, brought a prisoner to Glasgow, and from thence to Edinburgh, where they made his Lordship come out of his coach at the Water-gate, and, with a halter round his neck, he was led by the common hangmen, up the Canongate and High Street, and into the Castle; and on the 1st of June, suffered by being beheaded at the Cross of Edinburgh.

The inhabitants of this county made no particular display at the time of the Union; and its history since may rather be said to be agricultural and commercial than political.

General Remarks.—In a commercial point of view, Dumbartonshire is of considerable importance, on account of various branches of industry, particularly for its bleachfields, cotton-spinning, glass-works, and also for its ship-building. In its agriculture great improvements have of late taken place; the high demand from the Glasgow market having unquestionably operated as an inducement to undertake the improvement of the county lands. For this purpose, both proprietor and tenant have been obliged to enclose and lead manure, lime especially, which has greatly augmented the demand for day labourers, the consequence of which has been a rise in the price of daily labour, as compared with former times, and also in the wages of country servants. The necessary result of all is a very considerable rise in the rent of land. And as the high price of grain, on the one hand, has animated the inhabitants of the country, so, on the other, it has excited the jealousy of those in the city, who conclude that, since high prices are very advantageous to the landed interests, they must be hurtful to trade. This idea, though perhaps an erroneous one, has, however, been attended with some advantages. It was for the purpose of cheapening the price of county produce that county roads were first thought upon; and to accomplish the same object, the Clyde was deepened, and the Forth and Clyde Canal projected and carried through. It was in consequence of such speculations that agriculture itself, and a spirit for improvement of all sorts, began to be spread over this county. Spots, indeed, had been improved by individuals; whereas now we often see an acre not worth half-a-crown formerly, let for L.3 or L.4 or even L.6 per annum, for three crops. A few proprietors then improved for their pleasure; the body of our farmers are now beginning to follow their example, and seem to wish they were able to improve for gain.

It may here be observed, that debauchery and drunkenness pre-

vail but little in the county; and were none allowed to sell beer and spirituous liquors, but such as take out licenses according to law, they would still prevail less than they do.

The women, as in all districts, form a considerable class, and, from their industrious habits, many of them, when young and unmarried, are decently ornamented with the little superfluities of dress; which they hold out probably as a fund at their disposal for the maintenance of children, in case any young admirer should choose to fancy them. Were it not, therefore, for the use of ribbands, and such little ornaments now in fashion, a country lad could form no judgment of the industry and frugality of the young women of the parish. Some shallow observers and pepper-corn politicians scout at the gaudy dresses of the country maiden, and abuse her for trying to "mimic a lady." This is a short-sighted policy. I call the buying of such superfluities as ribbands the greatest proof of frugality; because every unnecessary expense must be cut off before they can purchase an ornament, which, from the wedding day, the husband expunges out of the list of his wife's expenses; as she had formerly expunged all other superfluities in order to acquire, what now she finds to be superfluous.

This county in its natural phases, and in its social character, is one of the most interesting in Scotland. In those beautiful arms of the sea, Loch Long and the Gare Loch,

———"The Dolphin sports upon the tide,
Displays his beauties and his scaly pride;
His various-coloured arch adorns the flood,
Like a bright rainbow in a watery cloud."

Her streams and lakes the most beautiful in this island,

"A various rare supply,
The bright-eyed perch, with fins of Tyrian dye;
The silver eel in shining volumes rolled,
The yellow roach in scales bedropt with gold;
Swept trouts, diversified with crimson stains,
And pikes the tyrants of the watery plains."

To these agreeable features,

"———his proud head the airy mountain hides,
Among the clouds, his shoulder and his sides
A shady mantle clothes."

Among these woods,

"The luscious pine, of humble growth, indeed,
But of majestic form its mitred head
Upresents."

The oak and many other trees abound, all contributing, with the beautiful retreats of men, to add beauty and interest to the scene.

TABLE I.—Shewing Ecclesiastical State, &c. of Parishes in the County of Dumbarton.

Parishes.	Population in 1881.	Ecclesiastical State.			Par. Schoolmasters' Emolum.			Savings' Banks.			Annual amount of Contributions to the Poor.					
		Families or individuals attending	Estab. Church.	Families or individuals of Dissent.	Amount of Parochial Ministers' stipend	Schools in Parish	Salary.	Fees	Total.	Number.	Amount yearly invested.	Amount yearly withdrawn.	From legal assessment.	From Church collections.	From Alms, Legacies, &c.	Total.
Dumbarton,	3623	2311*	772*	2757	L. 226 9 5†	8	L. 40 0 0	0	Not stated.		...	...	L. 300	L. 52 0 0	...	L. 352 0 0
O. Kilpatrick,	5979	3349†	2757	2357	L. 266 13 0‡	11	L. 34 4 4‡	L. 15 4 4‡	L. 49 4 4‡	4‡	...	...	275	35 0 0	...	310 0 0
New Do.	3090	338	239	239	136 5 11**	6	35 17 8‡	10 4 4‡	44 4 4‡	4‡	...	...	...	58 0 0	L. 135 0 0	193 0 0
Row,	2037	600†	1247†	1247†	11† chalds.††	8	36 0 0	0	66 0 0	0	Not stated.	...	...	80 0 0	40 0 0	120 0 0
Cardross,	3596	470	270	270	291 0 0	6	49 0 0	0	73 0 0	0	...	...	...	110 0 0	303 0 0	413 0 0
Arrochar,	560	105	None	None	213 4 6§	3	39 14 4‡	Not stated.	74 4 4‡	4‡	...	...	...	30 0 0	8 6 0	38 6 0
Roseneath,	825	153	3	186	257 18 3§	2	34 4 4‡	40 7 4‡	74 4 4‡	4‡	...	...	...	35 0 0	18 10 0	53 10 0
Cumbernauld,	3080	514	186	186	208 9 6§	3	34 4 4‡	15 4 4‡	49 4 4‡	4‡	L. 155	L. 155	...	50 0 0	Not stated.	53 10 0
Luss,	1181	All but 3	3	3	256 3 6‡	9	34 4 4‡	30 6 4 4‡	64 4 4‡	4‡	Not stated.	...	...	38 11 0	38 3 6	76 14 6
Kirkintilloch,	5888	3583*	2222*	2222*	96 bolls meal, 64 do. barley, and L. 43, 10s.	9	31 0 0	25 5 0 0	56 0 0	0	...	...	...	...	...	...
Kilmarnock,	999	60	100	100	...	3	21 7 0	22 43 7 0	43 7 0	0	...	...	...	26 0 0	Int. of L. 340	43 0 0
Bonhill.	3874	592	421	421	...	7	21 7 0	22 43 7 0	43 7 0	0	...	...	...	99 16 3	66 8 10	166 5 1

* Individuals in 1887.

† Do. in 1886.

‡ In 1885.

§ Average of three years preceding 1884.

|| This includes a voluntary assessment of about L. 78.

¶ 747 communicants. ** Average of six years preceding 1880.

†† Of what grain not raised.

TABLE II.—Showing the Fairs Prices of Dumbartonshire from
1832 to 1838 inclusive.

	1832.	1833.	1834.	1835.	1836.	1837.	1838.	Average.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Wheat,	51 1	47 9	39 9	36 5	48 6	48 8	58 11	47 3 $\frac{1}{2}$
Oats,	18 7	19 1 $\frac{1}{2}$	20 3	20 9	25 3	20 9	25 11	21 6 $\frac{1}{2}$
Bar,	27 5 $\frac{1}{2}$	25 9 $\frac{1}{2}$	23 10	23 11	27 5	27 3	31 10	26 9 $\frac{1}{2}$
Barley,	29 10 $\frac{1}{2}$	28 6 $\frac{1}{2}$	28 1	27 0	30 7	30 3	38 0	30 4
Pease &								
Beans,	31 4 $\frac{1}{2}$	31 0 $\frac{1}{2}$	32 0	33 0	44 6	36 10	48 4	36 8 $\frac{1}{2}$
Oatmeal,	14 8	14 7	15 6	16 2	22 8	16 2	20 9	17 2 $\frac{1}{2}$

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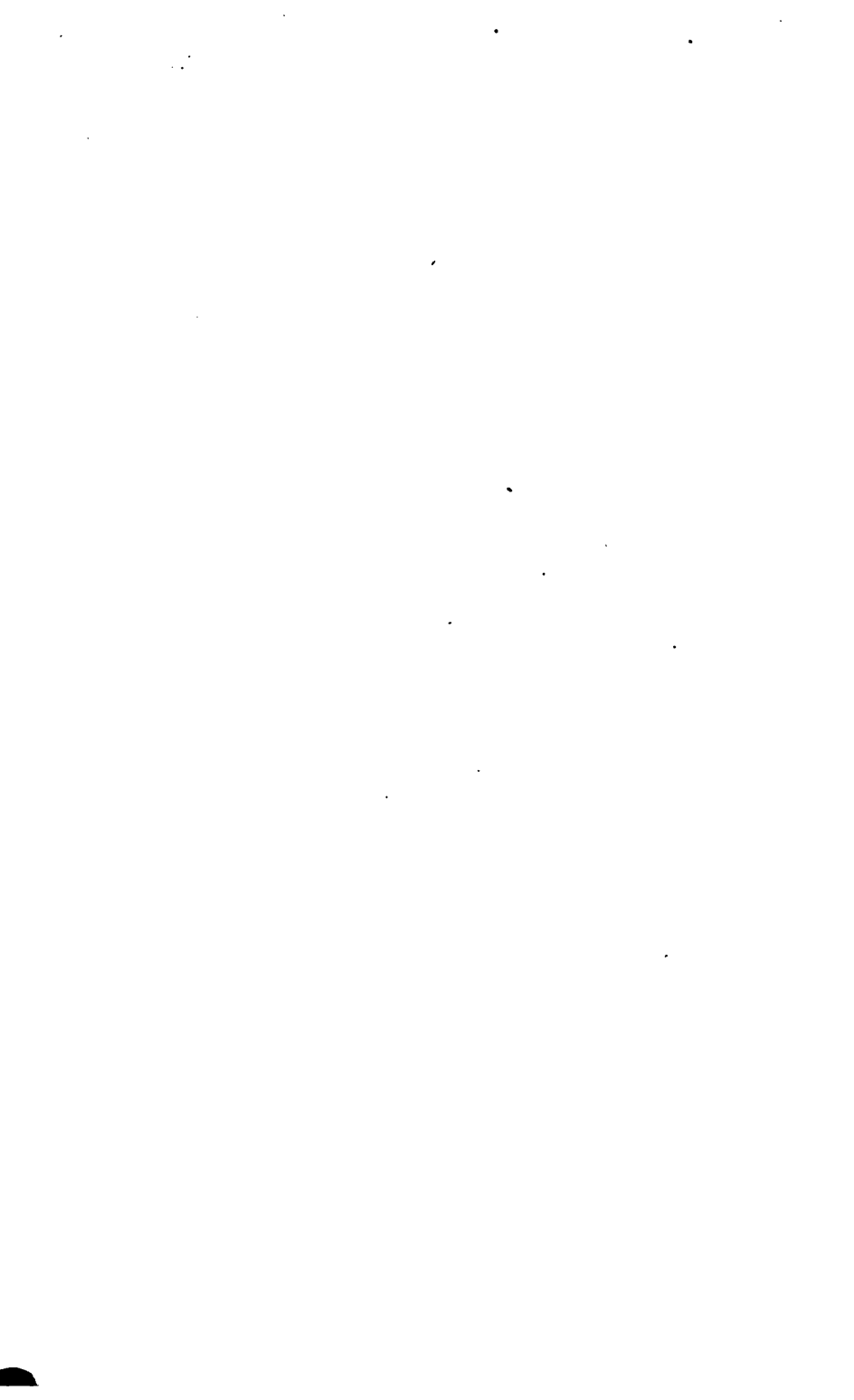


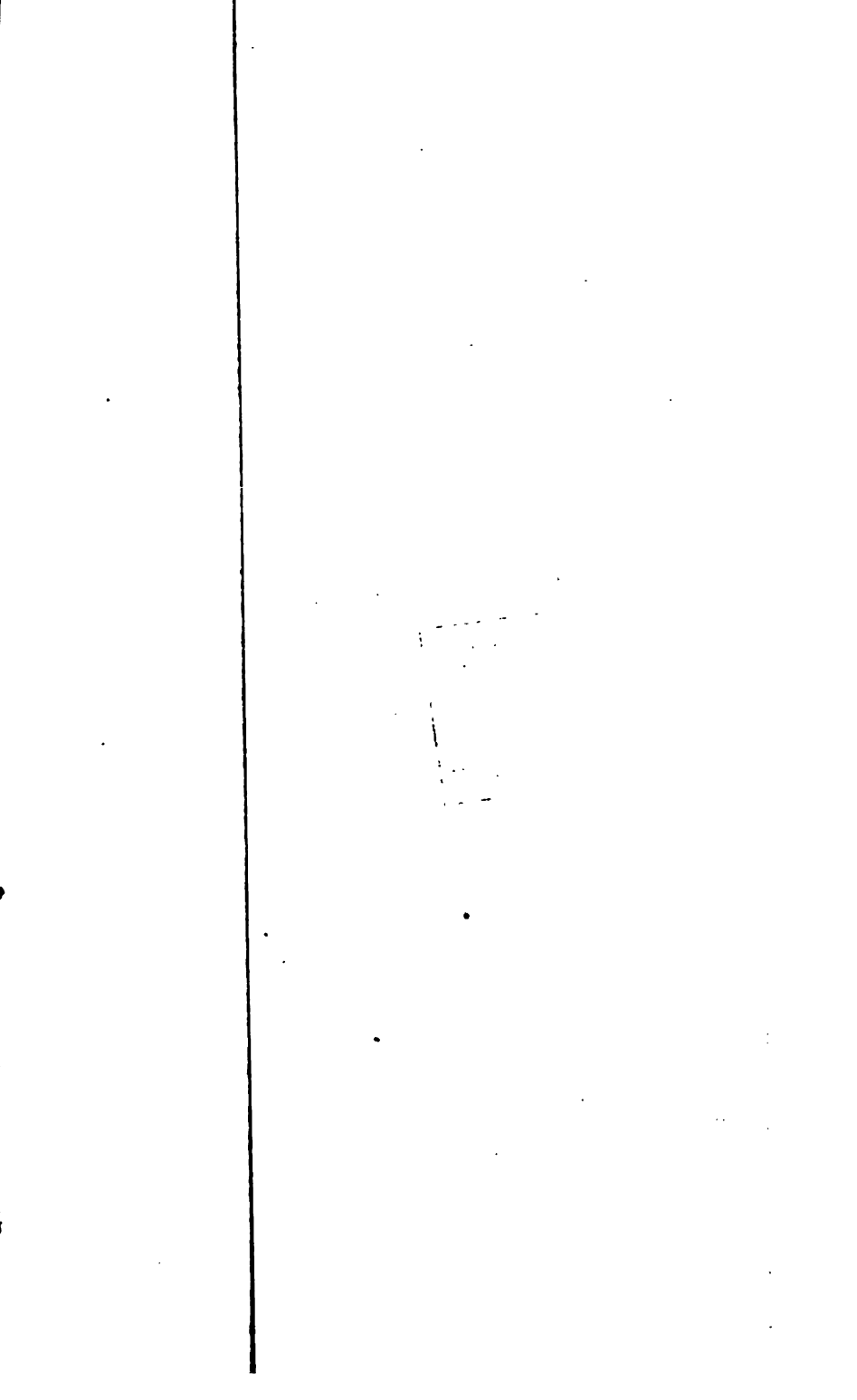
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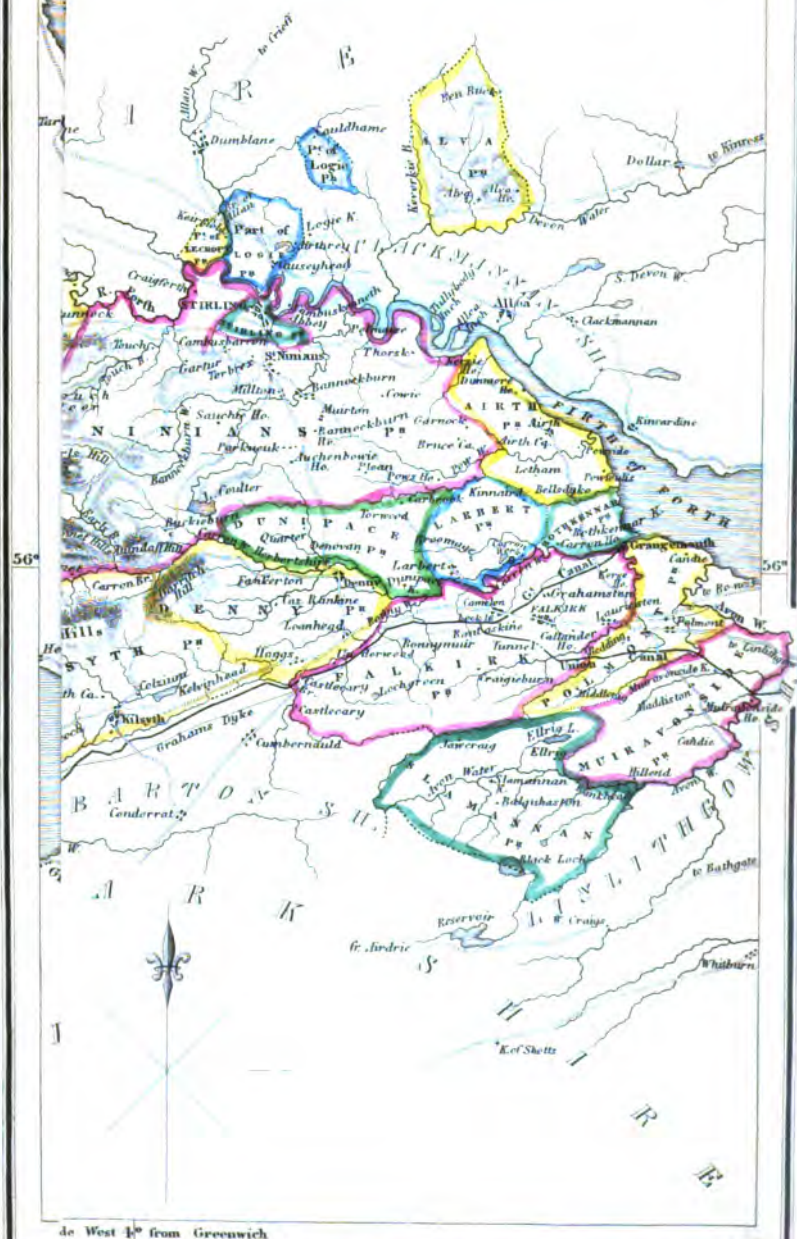
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STIRLING SHIRE.



PARISH OF FALKIRK.*

PRESBYTERY OF LINLITHGOW, SYNOD OF LoTHIAN AND
TWEEDDALE.

THE REV. WILLIAM BEGG,
THE REV. THOMAS GORDON, *2d Congregation*, } *Ministers.*
THE REV. JAMES W. TAYLOR, *Grangemouth*,

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, Boundaries, &c.—FALKIRK appears to have been a town of some note in the eleventh century. The origin and etymology of the name are involved in much obscurity. The town is supposed to have been at one time denominated *Ecclesbrae*, or the Church on the Brow, as descriptive of its situation. In the Gaelic language it is called *Eglais bhris*, or the fallen church, and sometimes *Eglais bhrec*, signifying the spotted church. The name last mentioned has been translated *Vario Sacello*, and as such appears in charters of a comparatively recent date, supposed to have arisen from the colour of the stones used in the building, or from the different kinds of architecture of which it was composed. Another supposition is, that the present name is formed of the Latin word *val-lum*, and the Saxon, *kirk*, originating in the circumstance, that the church stands on or near the line of the ancient wall of Antoninus.

The parish of Falkirk is situated in the eastern division of the county of Stirling, is separated from the Frith of Forth by a small part of the parish of Polmont, and extends about nine miles in length, and from two to five in breadth. It is bounded on the east, by the parishes of Polmont and Muiravonside; on the south, by Muiravonside and Slamannan; on the west, by Cumbernauld and Denny; and on the north, by the river Carron, which divides it from Dunipace, Larbert, and Bothkennar. The course of the Carron, however, having, many years ago, in several places, been altered, some parts of this parish are now on the northern side; and certain small parts of the parishes of Larbert and Bothkennar are on the southern, or Falkirk side of the river.

* Drawn up by John Burns, Esq. Writer, Falkirk.

The parish is of an oblong shape, stretching from the north-east to the south-west; and about four miles to the south, it is indented by parts of Polmont and Cumbernauld on the east and west, in nearly opposite directions.

Topographical Appearances.—From the eminence on which the town is situated, northward to the river Carron, forming about a third part of the parish, the ground is perfectly flat, and consists of fertile carse soil in the highest state of cultivation. For a considerable space southward from the town, the country rises gradually to the height of about 600 feet above the level of the sea. Of this district the greater part is arable, and is diversified by wood of natural growth, and by thriving plantations. Near to the southern boundary, there is an extensive moss, which gives to that part of the parish a dreary aspect. To the east and west of the town the ground is of an undulating shape, and is in general in an improved state. From the heights on the south a view may be obtained, scarcely excelled in Scotland for richness, variety, and extent. In the north-west, and at the distance of thirty miles, are to be seen Benledi and Benvoirlich, raising their lofty heads in wild sublimity. Within a more contracted range, circumscribed by the high grounds above Kilsyth and Denny, and by the Ochils and the Saline hills, many interesting objects meet the eye in a landscape studded with stately mansions, and with several towns and villages, while the broad expanse of the Forth intersects, enlivens, and beautifies the scene. When viewed from the north also, the town and wooded rising-grounds behind are picturesque and imposing.

Climate, &c.—The climate of the parish, upon the whole, is mild and temperate, although cold easterly winds generally prevail in spring and the beginning of summer. These have been the cause of great injury to vegetation, and render the fruit crop very precarious. In some seasons the verdure of the hedge-rows on the sides exposed to the north and east, has been entirely destroyed. Near the centre of the parish, there is more warmth than either to the north or south. At Grangemouth, when the wind blows from the sea, the air is extremely cold, while it is mild in the interior. On the approach of winter and during the early spring months, snow frequently covers the ground in the higher parts, when it is unknown in the lower. The parish is remarkably healthy. There are no diseases peculiar to it, and many of the inhabitants live to a good old age. At one time, fever and

ague were prevalent to a considerable extent, especially in the Carse; but now, from the superabundant moisture being drained off, and probably from the condition of the population being improved, ague is quite unknown.

Mineralogy.—Coal is found in the higher districts, in such abundance as not only to be sufficient for home consumption, but quantities are sent by the Union Canal for the supply of the metropolis. Ironstone, limestone, and sandstone are found in the same districts with the coal, one stratum of limestone being often found above, and another below a stratum of coal. Veins of ores of silver, copper, lead, and cobalt are said to have been raised at different periods, but not in considerable quantities. In some parts of the Carse, borings have been made, not to such a depth as to enable us to speak with certainty respecting the mineral contents; but as the locality is almost in the centre of the great northern coal basin, there is every reason to believe that coal may there be found, and of good quality.

Hydrography.—As already stated, the parish is bounded on the north by the Carron. This river, famed in Celtic antiquities, and rendered classic from its connection with incidents in Scottish history, takes its rise in the central parts of the county. It flows in an easterly direction with a sinuous course for about fourteen miles, and joins the Forth a little below the port of Grangemouth. At full tide, it is navigable for vessels of 200 tons burden, as far as the village of Carronshore, which may be two miles from its embouchure. Above this it is a transparent stream, and abounds with trout, perch, eels, &c.; but farther down it has a muddy bed, by which the water is discoloured. It seeks its way to the Forth through a deposit of the richest alluvial matter.

A rivulet at Castlecary divides the parish on the west from Cumbernauld, in the county of Dumbarton. Here there is a cascade of eighty feet in height, embowered in overhanging woods. A little to the northward, the rivulet joins Bonnywater, separating this parish from Denny and from a part of Dunipace. This stream falls into the Carron, about a mile below the village of Bonnybridge.

The Grange-burn divides the parish from Polmont for two miles on the east. It has its rise in the upper part of the parish of Polmont, and, running northward, unites with the Carron near Grangemouth. Formerly its junction was at that town, but, by a recent alteration, afterwards described, the stream joins the Carron farther down.

There are several other small rivulets or burns which find their way to the Carron. The only one of these worth noticing, is the Light-water-burn, near to the village of Camelon. This streamlet flows in the centre of what, to all appearance, must at some remote period, have formed the bed of a considerable river. The regular banks on each side, with the different windings, distinctly show this, and in the vicinity the face of the country has every appearance of a sea coast. Bays, headlands, and other similar indications may be easily traced. Close by, is the site of the ancient city of Camelon, which tradition represents to have been a sea-port, and where fragments of anchors and ancient boats have been found imbedded in the soil. The sea is now four or five miles distant.

There are three small lochs in the upper parts of the parish, but in regard to them nothing remarkable can be stated.

II.—CIVIL HISTORY.

Historical Events.—Situated on the boundary betwixt the Roman possessions on the south, and those of Caledonia on the north, many sanguinary encounters took place in ancient times in this parish. Among these, there was one in the year 415, in which Robert Graham, a commander under King Fergus II., fell, while repelling the Roman forces; and from this event the Wall of Antoninus, originally formed in A. D. 140, is supposed to have received the appellation, which it bears to this day, of Graham's Dyke. From the inscription upon a slab of marble found at taking down the old church in 1810, it appears that Graham was buried in the adjoining church-yard.

On the north of the town, and near to where the village of Grahams-ton now stands, a battle was fought on 22d July 1298, between the forces of Edward I. of England, and the Scots, led on by the patriotic and undaunted William Wallace. The attack on each side was violent, but, overpowered by superior numbers, the Scots retreated, and, crossing the river Carron, marched northward. In this battle Sir John Graham of Dundaff and Sir John Stewart of Bonkill, commanders in the Scottish army, were slain, and were both interred in the church-yard, where their grave-stones are still to be seen.

In the reign of James III. the town was for some time occupied by the army of the discontented Lords, who had risen in rebellion against that monarch. His Majesty intended to have attacked them there. They, however, anticipated his purpose, and met him at

Sauchie-burn, near Stirling, where the conflict took place, which terminated in his defeat and death.

While Queen Mary was yet an infant, Henry VIII. cherished the hope of subjugating Scotland by her union in marriage with his son Edward. The Earl of Arran, then Regent, favoured the scheme; but Cardinal Beaton and the Earl of Murray were its determined opponents. These personages agreed to have a meeting at Falkirk on 4th September 1543; and at Callendar House a treaty was signed, which put an end to the proposal.

This celebrated but unfortunate sovereign appears to have been on an intimate footing with the family of Callendar. On the 12th of August 1562, she dined there with a part of her train on her way to the north; and on 1st July 1565, she stood godmother to the infant Baron of Callendar, son of William, sixth Lord Livingstone. She slept at Callendar with the infant Prince James, on the night of the 13th January 1567, and again on the 24th of the same month, when on her way to visit her husband Darnley, then ill of the small-pox at Glasgow; with whom she returned to Falkirk on the 28th, and proceeded to Edinburgh on the following day. Soon after this, Mary was a captive at Lochleven. After her escape from thence, Lord Livingstone was one of those who welcomed her on her arrival at Niddry Castle; and on the field of Langside, distinguished himself by his gallant conduct at the head of his vassals, composed of inhabitants of Falkirk. He rode with the Queen from that fatal field, and, along with her, was confined in different prisons by Elizabeth. At Bolton they were joined by Lady Livingstone, who, with her husband, were for several years the principal attendants, or rather companions, of the captive Queen. In 1573, they were both released from their sufferings by death, and their remains were conveyed to Falkirk for interment.

In the nonage of James VI., Scotland was for some time governed by the Earl of Morton, a function which, from the unpopularity of his measures, he was induced to resign. Having, however, obtained possession of the King's person, and of the Castle of Stirling, his friends came to his assistance, and the Earl pitched his camp at Falkirk. Thither the army of his enemies soon resorted. When ready to engage, a truce was agreed to, followed by a treaty, which was published at the market-crosses of Stirling and Falkirk, on 14th August 1578.

The year 1638 was remarkable as the period in which the

success terminated. Amongst the slain in the Royal army were Sir Robert Munro of Foulis, Baronet, and his brother Dr Munro, to whose memory a splendid monument was erected near the centre of the church-yard. Many incidents in regard to this eventful day have been handed down. One of these may be mentioned. On the day following, a son of the chief of Glengarry, who had been engaged in the conflict, was accidentally shot from a window in the principal street of the town. He was carried to his lodgings in the near neighbourhood, in a house then possessed by an ancestor of the writer of this article, where he lingered for several days, and, after every attention paid to him, he expired, and was interred in the church-yard.*

During the revolutionary excitement which pervaded the lower orders in the year 1820, a skirmish took place on a rising ground four miles westward of the town, which has been called the battle of Bonnymuir. On Wednesday, the 25th of April, a party of armed Radicals, chiefly from Glasgow, were overtaken near to the scene of action by Lieutenant Hodgson of the 10th Hussars, and Lieutenant Davidson of the Stirlingshire Yeomanry Cavalry, with a detachment of their respective corps. On observing this force the Radicals cheered, and advanced to a wall, over which they commenced firing at the military. They were soon, however, overpowered, and nineteen of them were taken prisoners and lodged in Stirling Castle. In the encounter Lieutenant Hodgson received a pike wound through the right hand, and a sergeant in the Hussars was severely wounded by a shot in the side and by a pike. Several of the Radicals were also wounded, and three horses. In this affair, five muskets, two pistols, and about one hundred round of ball cartridge were taken by the military. The result showed the hopelessness of any attempt on the part of the Radicals to cope with regular troops, and the disturbances of that period speedily subsided.

Eminent Characters.—The family of Livingstone has been long distinguished in this quarter. It is supposed to have had its origin about the year 1075, and to be of Hungarian extraction. In course of time, it branched out into the three families of Linlithgow, Callendar, and Kilsyth. At the period of the Rebellion

* The house from which the shot came was several years ago taken down and rebuilt by the writer of this account. The death of this young officer was occasioned by one of his own men whose gun had missed fire during the engagement; and while cleaning his piece, the shot went off "at the expense of a life he would have done much to save."

in 1715, the titles of Linlithgow and Callendar centred in James, fifth Earl of Linlithgow, and fourth Earl of Callendar. He and William, third Viscount Kilsyth, having joined in that rebellion, their estates were confiscated and their titles forfeited. The Earl escaped to the continent, where he died. Sir Thomas Livingstone of Westquarter and Bedlormie, Bart., is said to be his lineal descendant. The estate of Callendar was sold about the year 1720 to the York-Buildings Company, whose affairs having become disordered, it was brought to sale under authority of the Court of Session in 1783, and was purchased by the late William Forbes, Esq., merchant in London, father of the present proprietor. William Boyd, fourth Earl of Kilmarnock, married Lady Anne Livingstone, only surviving child of the above-mentioned James Earl of Linlithgow and Callendar. He connected himself with the Rebellion of 1745, and having been convicted of high treason, was beheaded at London on 18th August 1746, in the 42dth year of his age, and his remains were interred in the Tower. While the estate was the property of the York-Buildings Company, they granted a lease of it to the Earl and his Countess, which expired about the year 1777.

The estate of Kerse, now belonging to the Earl of Zetland, was formerly the property of the family of Hope. In 1638, it was purchased by Sir Thomas Hope, King's Advocate, from Sir William Livingstone of Kilsyth. By destination it fell to his second son, Sir Thomas Hope, one of the Lords of Session, and afterwards Lord Justice-General. The estate was purchased many years ago by Lawrence Dundas, Esq., merchant in Edinburgh, who was created a Baronet in 1762; and, in 1794, his son, Sir Thomas, was advanced to the Peerage under the title of Lord Dundas. He died in 1820, and was succeeded by his son, Lawrence, who, in 1838, had conferred on him the title of Earl of Zetland. In consequence of his death in the following year, the estate and honours devolved on his son, Thomas, the present Earl.

James Wilson, D. D., minister of the parish, was a native of Lanarkshire; became pastor of a Dissenting chapel at Stockport, in England; was translated to Mid-Calder in 1793, and to Falkirk in 1794. He died in 1829. In 1801, he published a *History of Egypt* in three volumes, and, in 1819, *Prayers for Families and Individuals*. Besides these, he was the author of some smaller publications. He had a numerous family, all of whom

predeceased him, excepting one son, the present minister of Irvine, who is the author of several works in Theology.

Mr William Symington of the Wanlockhead mines, inventor of a method of moving wheel-carriages by steam, constructed, in 1802, a steam-vessel for the Forth and Clyde Canal, which towed two loaded sloops of seventy tons burden each, from Lock No. 20, to Port Dundas, a distance of $19\frac{1}{2}$ miles, in six hours against a head wind. It appeared, however, that the agitation of the water would destroy the canal banks, and the design was laid aside. Mr Symington lived many years in Falkirk, and died in London a few years ago.

The Rev. John Brown Patterson, A. M., was ordained minister of this parish in 1830. He was a native of Alnwick, in Northumberland. He became distinguished as the author of an Essay on the National Character of the Athenians, which gained the prize of one hundred guineas, offered in 1827 by the Commissioners for visiting the Universities of Scotland. He died in 1835, and his remains lie interred in the porch leading into the church, where an elegant monument has been erected to his memory. Since his death, memoirs of his life, with a selection from his discourses, have been published in two volumes; and, more recently, a volume of lectures.*

Henry Belfrage, D. D., was a native of this parish, being a son of the Rev. John Belfrage, minister of the Associate Congregation in Falkirk. He was ordained colleague and successor to his father in 1794, and died in 1835. He published several volumes of sermons and other theological works.

James Walker, Esq., LL. D., the celebrated engineer, London, was born and educated in Falkirk. His father was a respectable merchant in the town, and was proprietor and occupier of an extensive farm in the neighbourhood.

The Rev. James Burns, A. M. was a native of Falkirk. While at college he gained several prizes. He was ordained to the first charge of the parish of Brechin in 1798, and was the author of the Account of that parish, which appeared in the first number of this work,—besides other publications. He died on 2d January 1837.

Commodore Charles Napier was born at Merchistonhall in this parish. He is renowned for the part he acted in the late brilliant affair of St Jean D'Acre, and for other martial achievements.

* He was succeeded as minister of the parish by the Rev. Alexander Melville, who was ordained on 22d January 1836, and died on 2d December 1839.

Land-owners.—The chief land-owners are, William Forbes of Callendar; the Earl of Zetland; Sir Thomas Livingstone, Bart.; Henry Stainton, Esq. London; Carron Company; The Union Canal Company; Heirs of Joseph Stainton, Esq.; John B. Ralston of Ellrig, John Strachan of Thornton, Yorkshire; John Callander of Woodburn; Alexander Macfarlane of Thornhill; Robert Russell of Dalnair, Thomas C. Hagart of Bantaskine; Andrew Speirs of Lochgreen; Thomas Marshall of Broomhill; General Straiton of Underwood; John Baird of Camelon; Henry Salmon of Bonny-side; and the Rev. Thomas Sworde, Rector of Thetford.

Parochial Registers.—The date of the earliest entry is 4th January 1594. They are voluminous, and have been regularly kept until the present time.

Antiquities.—Under this head, may be noticed the ruins of the *præsidia* or forts which were built by Agricola in the 80th year of the Christian era, for securing his conquests on the south. These forts appear to have been erected in the same track where Antoninus afterwards formed the wall now called Graham's Dyke. At Castlecary, the remains of one of these forts is still to be seen. They cover six acres of ground, now forming a grass field, being vaulted underneath. Part of the foundation of the fort still continues, and many of the square stones of which it was built are used in the enclosure of the field. At Roughcastle, two miles eastward, another of these forts was placed, but of which no vestiges can be discovered; and its situation is only marked by a slight elevation of the ground. About half a mile north-west of the modern village of Camelon, there are said to have been the ruins of a fortification or camp; but, as the ground has long been under tillage, no remains of it are visible. What is commonly called the wall, consisted of a ditch or *vallum*, having a wall on the south, which was formed of the earth thrown out in digging the ditch. Stones with inscriptions have been dug up in various parts of it, which throw light on its history, several of which are in the College of Glasgow. Traces of the ditch are to be seen in various places eastward from Castlecary, and also in the grounds of Mr Forbes, and of Mr Hagart. It is particularly conspicuous in Callendar Park, and at Laurieston. About a mile east of that village, it enters the parish of Polmont. A Roman highway entered the parish at Castlecary fort, and ran along the south side of Graham's Dyke. Half a mile east of Roughcastle, it crossed the wall of Antoninus, and came to the ancient station at Camelon, from which it held on to the river Carron, where it entered the pa-

rish of Larbert. Some parts of it remain, and are now used as a road. At the time of cutting the Forth and Clyde Canal, which is at no great distance, a Roman granary or cell was discovered, which contained a considerable quantity of wheat of a blackish colour. Portions of this wheat are in the possession of different individuals in the neighbourhood.

The old tower or keep of the Castle of Castlecary is still in tolerable repair, and is inhabited by the Earl of Zetland's forester. The other parts of the building are in ruins. It is a very ancient structure, and the tradition is, that it was built in the time of the Romans.

In the course of the excavations at Grangemouth, two vertebrae of a whale were discovered imbedded in the clay. Lately, when digging clay at the Earl of Zetland's brickfield, about three miles from the sea, a similar relic was found, eighteen inches below the surface. It measured a foot in length, by nine inches in diameter.

In April 1840, the trunk of a tree in a petrified state was found in the centre of the railway tunnel at Falkirk, 129 feet from the surface. It is about five feet in circumference. Several other organic remains have been found there.

Mansion-Houses.—Among these, Callendar House, the seat of William Forbes, Esq. undoubtedly holds the first place. It is in the fashion of the olden time, being remarkable for length rather than width,—of great thickness in the walls, and adorned with turrets of an antique form. It must have been built several centuries ago, but was in part modernized by the late proprietor. Viewed from the highway, it has a magnificent appearance. The situation, however, is low, and hence the prospect is limited. It is well sheltered in a park containing 400 Scotch acres, of which 250 are covered with coppice-wood, mostly oak, upon ground rising gently to the south. The lawn is ornamented with trees of great size, and supposed to be 200 years old, having been planted by the Earl of Callendar on his return from the exile into which he had gone with Charles II. Within the wood there is a mausoleum erected by the late Mr Forbes, in which his remains are deposited. It is of a circular form, ornamented with Doric columns. Over the door there is a Greek inscription, which has been translated thus:

“ All things we mortals call our own
Are mortal too and quickly flown;
But could they all for ever stay,
We soon from them must pass away !”

Kerse House, the seat of the Earl of Zetland, is pleasantly si-

tuated in the middle of a finely wooded park, and is the chief ornament of the eastern Carse. The original part of the building is very ancient, but successive additions have been made to suit the convenience or taste of the possessor. Its present appearance is that of a mansion of the Elizabethan times.

Bantaskine House, the residence of T. C. Hagart, Esq., is an elegant and substantial mansion of modern architecture. It stands on an elevated spot, half a mile south-west of the town, and partakes of the fine prospect which has already been adverted to. The grounds are encircled by luxuriant plantations.

Modern Buildings.—The office and dwelling-house for their agent, lately erected by the Commercial Banking Company, in the High Street, is a superb structure, and beautifies the part of the town where it stands. The meeting-house of the Secession at the east, and the Relief Church at the west end of the town, are large plain buildings, and do not contribute advantageously to the appearance of the place.

III.—POPULATION.

The population of this parish in 1755, was 3992

1792,	8020
{ 1801,	8838
{ 1811,	10,395
1821,	11,536
1831,	12,748
1835,	13,037

The gradual increase may be ascribed to improvements in agriculture and the extension of trade and manufactures.

In 1831, the number of inhabitants residing in the towns and

villages of the parish was	10,294
in the country,	2454
	12,748

Average of births for the last three years,	252
deaths,	255
marriages,	110

There is only one nobleman (Earl of Zetland) who has a dwelling-house in the parish, but who resides chiefly in England. The number of individuals or families of independent fortune, and not engaged in business, may be seven. The proprietors of land of the yearly value of £50 and upwards, may be estimated at forty in number. The people are, in general, contented with their situation and circumstances; and the great proportion are moral and religious, in so far as can be judged from regular attendance at public worship and outward decency of conduct.

Poaching in game is practised by some individuals. Smuggling may be said to have entirely ceased. Pawnbroking is carried on to a small extent, although there is none licensed for that trade.

IV.—INDUSTRY.

Agriculture.—

The number of acres, standard imperial measure, cultivated or occasionally in tillage, may be computed at	11,000
Number of acres never cultivated, and constantly waste or in pasture,	1900
undivided common,	none
under plantations,	1800

The trees planted or indigenous are, oak, Scotch fir, ash, larch, beech, hazel, and birch. The wood of Callendar is believed to be the remains of the Caledonian forest, with which a great part of the country was covered at the Roman invasion.

Rate of Labour.—Farm labourers have, in summer and winter, 8s. and 9s. per week, with victuals. Masons and carpenters, 2s. and 2s. 6d. per day besides victuals. Ploughmen have L. 16 per annum, with bed and board.

Breeds of Cattle.—Of these few are reared, supplies being obtained from the North and West Highlands.

There is nothing peculiar to the husbandry of the upper parts of this parish. Of the method of labour practised in the Carse district, we here insert an account, which has been furnished by an intelligent and scientific farmer, Mr David Hardie, Westkerse, and which may be viewed as applicable to the carses of this county in general.

“Owing, probably, to the small size of the farms in the district, which, till within the last fifty years, were much smaller than they now are, improved modes of management were later in being introduced, than into many parts of the country. Since then, however, great changes have been effected; improved breeds of cattle have been introduced; agricultural implements have been perfected; farm-offices improved; and the fields have been levelled and laid off in straight ridges.

“Greater facilities have also been afforded by the harbour of Grangemouth for procuring sea-borne manures, which have been largely used.

“The greatest alteration, however, has undoubtedly been effected by draining,—the first agricultural improvement of modern times, and one admirably adapted to the state of the soil. For the latter operation, drain-tiles, of which there is a manufactory in the district belonging to the Earl of Zetland, are universally used, and nearly all the farms have been either wholly or partially drained with them. The rotation of crops has also become better understood, and the particular shifts which are best suited to call forth the energies of the soil, have been ascertained. Indeed, most of

the tenantry are bound, in their covenants of lease, to follow a particular system of cropping ; but as it is one which experience has proved to be best adapted for the land, it is very rarely departed from, even in cases where the tenant is at liberty to do so. It is as follows : First year, fallow ; 2d, wheat ; 3d, beans ; 4th, barley ; 5th, clover and ryegrass ; and 6th, and last of the rotation, oats. According to this system of alternate cropping, it will be seen, that, in order to secure a proportion of each kind of crop, as well as an equal distribution of labour throughout the season, it is necessary that each farm be divided into six equal parts, one of which is allotted to each of the above-mentioned crops. It has been objected to, on account of the frequent recurrence of fallowing ; but the adhesive nature of the soil, and the circumstance of its being much infested with root-grasses, seem to render this necessary. A crop of beans, indeed, is occasionally taken in place of fallow, in which case the land is manured and ploughed as soon as possible after the last crop of the previous rotation has been removed, and the beans are drilled in the month of February or March following, at the rate of six bushels per Scots acre. The land never admitting at that early season of being formed into drills, the drill-machine merely follows the plough, depositing the seed in every alternate furrow, at the distance of from eighteen to twenty-two inches betwixt the rows. They are usually twice hand-hoed in the early part of the summer, and if the land has been sufficiently manured, and the beans got off in time to allow it to be properly prepared for the wheat, the crop is not unfrequently equal to that which has been preceded by a bare fallow. In consequence, however, of the late season at which beans ripen in this climate, they are seldom harvested in time to allow the land to be so prepared, and a bare fallow is therefore generally preferred.

“ In this case, the land receives from four to six ploughings in the course of the summer, and is reduced to a fine tilth by a plentiful use of the harrows and roller. On account of the tendency of the wheat crop to lodge, manure is rarely employed in its culture. Lime is, however, occasionally applied, at the rate of ten to fifteen cart loads of shells per acre, although it is not so largely used, as, from its beneficial effects on the soil, might have been expected.

“ The seed is universally sown broadcast, and the season generally preferred is from the beginning to the middle of October. The quantity of seed varies from two to three bushels per acre. The varieties in greatest esteem are Hunter's, and white and yellow

Essex, although numerous others are in use. As early as possible after the wheat crop has been harvested, the manure which has been collected during summer is applied to the stubble land, for the following crop of beans, and the process is continued during frosty weather until the whole has been gone over. The quantity laid on varies probably from twenty-four to forty cart-loads per acre, and the expense, exclusive of the carriage, from L. 6 to L. 10. If intended to be sown in drills, the same method is pursued which we described above in the case of their being substituted for fallow as a preparation for wheat; but by far the greater breadth of them is sown broadcast. In the latter case, the ground is not ploughed till the month of February, and the crop is sown if possible about the beginning of March, at the rate of six bushels of beans, with one to two pecks of fitches per acre. The seed is then harrowed in, and the land rolled down, to preserve the moisture, as soon as it is sufficiently dry to permit of it. The land is again ploughed, shortly after the bean crop has been got off, and allowed to lay in the winter furrow, till the month of March or April following, when it receives two more ploughings, with a vigorous application of harrows and roller, to prepare it for the reception of the barley and grasses which are sown at the same time for the succeeding year's crop of hay. From three to four bushels is the ordinary allowance of seed for the former, and from half to a bushel of ryegrass seed, with about eight pounds of red clover per acre for the latter. The common two-rowed barley, or, as it is sometimes termed, English barley, from its having been first introduced from England, has long ago superseded Scotch bear or bigg, and is the only variety now in use. The land is again ploughed in the winter succeeding the removal of the hay crop, for the last crop of the rotation, viz., oats, which are sown at the rate of six bushels per acre about the end of March. The varieties sown are numerous, but that most in favour, and which, from the abundance of its produce, and early season at which it ripens, seems best deserving of it, is the Friesland oat, so called from having been originally introduced into this country from that province. The same course is again commenced by fallowing, the above being the only crops grown to any extent in the parish.

“ It is difficult to ascertain with precision the average amount of produce throughout a district; but it may be stated generally that forty bushels of wheat; forty-eight of barley; thirty-six of beans; sixty of oats; and two tons of first crop, with one ton of second

crop hay per Scots acre, are considered as a fair return. Much more is occasionally reaped, but the above quantities will certainly exceed rather than fall below the average.

“ Grain rents, now so generally in use, are universal throughout the district. The principle, however, is not carried out to its full extent, wheat being the only article of produce by which the value of the rents is estimated; in other words, the farms are universally let for a certain number of bushels of wheat per acre. Ten is by much the most usual number, although a few of the farms are held at nine bushels per acre. The value of the wheat is, of course, determined by the fiars’ prices of the county, and varies, frequently to a very considerable extent, yearly. In order, in some measure, to regulate this—to prevent the rents from rising too high in scarce years, and falling too low after plentiful harvests, it is becoming usual to fix a maximum and minimum price at which the wheat shall be convertible into money, when the fiars’ prices exceed or fall below them. Of late L.3, 16s. has in several instances been agreed on as the maximum, and L.2, 10s. per quarter as the minimum price, preventing a ten bushel rent from falling below L.3, 2s. 6d., or rising above L.4, 7s. 6d. per acre. But as the average of the county fiars for the last seven years, does not quite reach L.2, 10s. per quarter, the former of these sums may be taken as the average rent of the parish.”

Agricultural Society.—The Agricultural Association of the Eastern District of Stirlingshire was formed here two years ago. The Earl of Dunmore is patron, and Mr Forbes, president. Its object is to promote scientific and practical improvements in agriculture. Two cattle shows are held annually in the immediate neighbourhood of the town, at which premiums are awarded.

Horticultural Society.—There is also a Horticultural Society in Falkirk, under respectable patronage. The members have four exhibitions of fruits and flowers in the course of the summer season.

Manufactures.—The Falkirk Iron Works are situated half a mile from the town, on the south of the Forth and Clyde Canal, and connected therewith by a basin. They employ about 500 men and boys in the manufacture of every description of small castings and cast-iron articles; such as pans, pots, kettles, stoves, grates, &c. for home and export sale. Most of the workmen are employed in moulding these articles, and are paid according to the quantity of work they perform. The industrious and sober

can earn wages sufficient to enable them to live comfortably without overworking themselves. Others are employed in making patterns for the moulders, in dressing the articles when moulded, in fitting their various parts together, and finishing them for sale. They are not generally so well paid as the moulders. No branch of these employments is considered more detrimental to health than other trades, and no disease is peculiar to them. The most common complaints are, fever, a disease called blackspit, and other epidemical disorders; but to these they are subject only in common with other workmen in the neighbourhood. Many of them attain an advanced period of life. *

Nail Manufactories.—Of these there are two in the village of Camelon, being the chief branch of trade carried on there. It was introduced about fifty years ago by Mr Cadell of Carronpark, who brought persons from England versant in the business, and who, by teaching others, have handed it down until the present time. About 250 men and boys are employed. The men get out nail-rods from the master, and return the produce in nails. The shops and all working tools and utensils are furnished by the employers, who also provide dwelling-houses for the married men and their families. The men work from five to five and a-half days in the week, each day consisting of ten hours. The remuneration to nailers is as follows:—A man by himself gains, from 9s. to 14s. per week; a man and boy under him, 14s. to 16s.; a man with two boys, L.1 to L.1, 2s.; a man with three boys, L.1, 8s. to L.1, 10s. They, however, find themselves in coals, which may cost each man 6d. per week or thereby. The employment is by no means unhealthy, and the workmen are less subject to disease than those employed in cotton or similar factories. The morals of the nailers have been improved within the last few years. In particular, drunkenness and habits of improvidence are greatly on the decrease. In 1833, the cholera cut off so many of this class of people, that Mr Fairbairn found it necessary to advance L.40 for the purpose of interments, which has been repaid from the earnings of survivors, and a fund to the same amount accumulated to answer future emergencies. †

Collieries.—In the parish, there are three of these in operation, all to the south of the town of Falkirk. At one of them, the mining operations and the making of charcoal are carried on to such an

* Communication from G. Hardie, Esq.

† Communication from G. Fairbairn, Esq.

extent, as to employ 170 persons, who are paid according to the quantity of work they perform. They earn on an average L.1, 5s. per week each.

Quarries.—There are seven freestone quarries working at present on a line near the middle of the parish, as far as Castlecary, for furnishing stones for the railroad and viaducts connected therewith. In these quarries about 160 men are employed. There is also a whinstone quarry opened, for furnishing blocks for the railway, in which thirty men are employed. The weekly wages are from 15s. to L.1, 1s.

Brick and Tile-Works.—There are three of these in the parish. The largest is at Lock No. 3, on the south bank of the Forth and Clyde Canal. It belongs to the Earl of Zetland, who carries on the work under the direction of a manager, and employs about a dozen of men. The average weekly wages are 16s. A steam-engine of six horse power, for grinding clay, was lately erected here, being an improvement in the process of brick-making. The other two brick and tile works are about a mile west from the above, and also adjoin the canal. The one employs fourteen men, and the other ten. Average wages, 14s. per week.

Saw-Mills.—Of these there are three. One at Castlecary employs sixteen men, another at Bonnyside, fourteen. The weekly wages are from 14s. to 18s. The saws used in both are circular, driven by water, and cut up wood for staves, packing-boxes, lath, roofing, and joisting. Formerly they were corn-mills. The other is upon a large scale, and is situated on the north bank of the canal, betwixt Bainsford and Grangemouth. It is constructed on the principle of Macdowall's patent, and is wrought by three steam-engines of eighteen, twenty, and forty horses' power. The saws used are both upright and circular, and cut for general purposes wood of any length or diameter. About fifteen men and boys are generally employed at from 6s. to L.1, 5s. of weekly wages.

Wood-Yards.—There are four wood-yards in the parish. Taken together, ten pairs of sawyers are employed, who use the frame-saw for cutting up the wood. They are paid by the foot.

Pyroligneous Acid Works.—In Grahamston, there are two establishments for distilling wood. In one of them, the distillation is used in making iron-liquor for printfields, and in the other for making vinegar.

Corn-Mills.—Of these there are six, four of which are driven

by water. The other two go by steam-engines of twenty and thirty-six horse power.

Distilleries.—Of these there are two. One of them at Bonnymuir pays L.150 per week to Government, and employs twelve men. The other at Camelon employs five men.

Breweries.—There are four in the parish. Three of them are comparatively upon a small scale. The other makes ales and porter of various degrees of strength. It has a great home consumpt, besides sending large quantities to London and elsewhere. It is situated in the town of Falkirk, and employs twenty men.

Tan-works.—There are four tan-works, which are all situated in the vicinity of the town. Currying, as well as tanning, is performed in three of them; and in one of these the process of tawing sheep and lamb skins is carried on. They employ, in whole, forty-two men.

Weaving.—Muslin and coarse linen weaving are carried on here to a very small extent. In the town there are only forty persons employed in this trade. The muslin-weavers get all their work from Glasgow. The coarse linen-weavers work only at home-made cloth, that is, cloth made by families in the neighbourhood. Ten years ago, five times the present number were employed. They are decreasing every year, from the miserable wages made at the trade.

Nurseries.—There are four in the neighbourhood of the town, which occupy a considerable extent of ground, and supply a large district with forest-trees of all kinds, as also fruit-trees, ornamental shrubs, bushes, &c. They are all kept in excellent order.

Ship-Building.—This is carried on to a small extent, near to Lock No. 16. The vessels built are for the canal trade. Twelve men are employed.

V.—PAROCHIAL ECONOMY.

Market-Town.—Falkirk is the only market-town in the parish, and is estimated as containing nearly 5000 inhabitants; but within the bounds of the Parliamentary burgh, the population was ascertained in 1835 to be 7445. The town consists of a principal street, extending to three-quarters of a mile, from east to west, forming part of the turnpike road betwixt Edinburgh, Glasgow, and Stirling. The street is rather narrow at the extremities, but it gradually widens in approaching the centre, where it attains a respectable breadth. There are besides, other streets and lanes, some of which branch from, and others run parallel with, the prin-

cipal one. Among these, the Kirk-Wynd strikes off from the main or High Street, and connecting with a range of elegant new houses in the same line, unites the town to the villages of Grahamston and Bainsford, forming a continuous double line of houses of upwards of a mile in length. Situated on an elevation, with a gentle declivity on each side, and having a small stream or burn at each end, the town is easily kept dry, and has a free circulation of air. Within the last half century, many of the houses have been rebuilt, generally in a handsome style. An elegant spire, 140 feet in height, containing a clock and a couple of bells, one of them large and full-toned, is both ornamental and useful. It was built in 1813 on the foundation of an old steeple, which had been taken down in 1803, and originally erected in 1697. The shops and the town are lighted with gas, and a good supply of water is obtained from the high grounds to the south. The bustle of business is observable to a degree rather beyond that of ordinary country towns. This is the case particularly on market and fair-days, and on occasion of the great cattle trysts which are held on Stenhouse-muir, in the parish of Larbert, three miles to the northward. From its vicinity to these markets, a large proportion of the dealers make Falkirk their head-quarters, and they thus draw to it, periodically, a considerable influx of strangers. With the exception of leather, no goods are to any great extent manufactured in the town, it being chiefly supported by an extensive inland trade, and by the iron-works, canals, and collieries in the vicinity. There is a market for butcher-meat to which, for its well known excellence, resort is had from all parts of the surrounding country. The grain market is also well attended, and it has now ample accommodation. The trade of the place is assisted by a branch of the Bank of Scotland (which a few years ago came in place of the Falkirk Bank), also by branches of the Commercial Bank of Scotland, the National Bank, and the Clydesdale Banking Company.

Police, &c.—Falkirk was erected a burgh of barony by King James VI. in A. D. 1600, by a charter in favour of Alexander Lord Livingston. In 1646, it was erected into a burgh of Regality by Charles I., and the different trades acquired certain privileges, which were united by commissions or seals of cause from the baron. The rights which these conveyed are now entirely obsolete. The office of stent-master, still retained by delegates chosen annually by each of the trades, is supposed to have originated in the powers formerly enjoyed by the burgesses. When

the feudal jurisdictions were taken away in 1745, Falkirk again became a burgh of barony, under the government of a bailie appointed by the proprietor of Callendar; but for many years past no person has held that office. For a long period, the only dispensers of law in the town, were the Justices of the Peace, who held monthly courts for the recovery of small debts, &c. and the suppression of riots. There was no jail or place of confinement for criminals, and the inconvenience and expense of sending these to Stirling, the county town, was severely felt. At length measures were taken for relieving this populous district from the hardships under which it had been labouring, and the matter having been represented to Government, a resident sheriff-substitute was appointed, who opened his court in Falkirk in July 1834. This arrangement has been of great advantage to the place, the more especially as, since then, apartments in the town steeple have been fitted up and legalised as a prison; and it is now only necessary to convey to the county jail, such criminals as may be committed for trial before the Court of Justiciary.

By the Reform Act, Falkirk is constituted a Parliamentary burgh. Its boundaries are defined; and, along with Airdrie, Hamilton, Lanark, and Linlithgow, returns a representative to Parliament. By a subsequent act, the municipal government of the burgh is vested in a provost, three bailies, a treasurer, and seven councillors; but, having been called into existence without being provided with the means of defraying the necessary expenditure, the magistrates exercise no jurisdiction, nor have they as yet interfered with the town's revenue. This is managed by the stent-masters, who, from use and wont, have exercised the power of levying an annual assessment from the inhabitants, for supplying the town with water, and other public purposes. The feuars are a separate body, who annually choose office-bearers, and who, in consideration of their surrendering about forty years ago certain privileges which they held over the extensive moor or common on the south of Falkirk, in order that it might be cultivated, acquired right to some heritable property, besides the town's customs. Their funds are applied towards objects of local improvement. Hitherto this system has been held sufficient for managing the affairs of the town. The police of the district is maintained by the county at large, by whom several criminal officers are stationed in the place.

Villages.—Beginning at the west end of the parish, the first we notice is Bonnybridge. It is situated on the Glasgow turnpike

road, four miles from Falkirk, and contains about 100 inhabitants, who are employed as artisans and labourers. In the neighbourhood, there is a small burying-yard. There is a school which has a small endowment, and the teacher is appointed by the kirk-session of the parish.

Camelon is on the same turnpike road, and about a mile west from Falkirk. The population in 1831 was 809, and the inhabitants are chiefly engaged in nail-making. It has two schools, one of which was built by subscription, and a Sabbath school supported by a society. A handsome church has been recently built at the west end of the village, seated for 660 persons.* The ground for the site, and a liberal donation besides, were given by Mr Forbes of Callendar, and the remainder of the expense was made up by contributions under the Church Extension Scheme.

Bainsford, a mile north of Falkirk, is now a suburb of that town, and forms part of the Parliamentary burgh. In 1831, it contained 791 inhabitants, a great proportion of whom are employed at the well-known Carron Iron Works, which are in the neighbourhood, but in the parish of Larbert. A basin communicating with the Forth and Clyde Canal, accommodates the Carron Company's vessels in the Liverpool trade, and a railway connects it with the works. Some of the inhabitants are also engaged at a rope-walk at this place. The village contains one school. By the canal, over which there is a drawbridge, it is disjoined on the south from Grahams-ton, which in 1831 contained 1288 inhabitants. It is also a suburb, and part of the burgh of Falkirk. It consists of modern stone-buildings, occupied as dwelling-houses and shops. The labouring part of the population are chiefly employed at the Carron Works, and at the Falkirk Iron Works in the neighbourhood. From its vicinity to the canal, there is a considerable traffic in timber and grain; and vessels with dried fish from the north resort thither, which command a ready sale. There are four schools; some of them under female teachers.

Laurieston is about a mile and a-half east from Falkirk, on the Edinburgh road. In 1831, it contained 1306 inhabitants, who are employed chiefly in weaving, nail-making, and in agriculture. There are also various artisans, such as stone masons and shoemakers. This place has been laid out on a regular plan on the sides of the highway, having a square in the centre, with lanes in the same direction on the south and north, and intersected by cross

* This church was opened for worship on Sabbath, 23d August 1840.

streets. It was originally called New Merchiston, having been feued out in 1756, by Francis Lord Napier. It received its present name in honour of the late Sir Lawrence Dundas, who became its feudal superior, and it still holds under his descendant, now Earl of Zetland. There are three schools; also a church in connection with the Reformed Presbytery, built in 1788. The place is elevated, and commands an uncommonly beautiful view of the Carse of Falkirk, and more distant mountain scenery.

For the sake of arrangement we classify Grangemouth among the villages; but in reality, it merits the denomination of a town, being a sea-port, and the centre of a district lately erected into a *quoad sacra* parish.

GRANGEMOUTH * is situated at the junction of the Forth and Clyde Canal with the Carron, a little above the union of that river with the Forth. The town derives its name from the Grange burn, which, winding past the Grange, or home farm of the ancient and now demolished Abbey of Abbotshaugh, formerly emptied itself into the Carron, close by the site of the town. Recent improvements, by giving a new direction to the course of the rivulet, have deprived the name of its original significance. A new cut of nearly a mile in extent was opened in 1838, to connect this stream with the Forth in a more easterly direction, and thus to secure its former outlet for the formation of the extensive wet-docks which are now in progress. The town was commenced in 1777 by Sir Lawrence Dundas, in the prospect that its connection with the canal would raise it into consequence as a sea-port. The streets are regular, having been built upon a plan, and the appearance of the place, from the flatness of the surrounding country, the canal, and the frequent sea-dikes, suggests the idea of a Dutch village.

The canal is the object of principal importance. When it reaches Grangemouth, it has traversed a distance of twenty-nine miles from Port Dundas. The rise from Grangemouth to Lock 20, which is the summit of the navigation, is 156 feet. The rise is effected by means of locks of 20 feet in width and 74 in length, every one of which has 8 feet of fall. Its width upon the surface is about 60 feet, and at the bottom 27. Its depth is 9 feet. The canal terminates at Grangemouth in extensive wood-ponds, in a basin and harbour. It admits vessels of ninety tons burden.

The wood-ponds are receptacles for the timber which is im-

* The account of Grangemouth has been furnished by the Rev. Mr Taylor.

ported. They are two in number. The largest is bonded, and forms a square of about three acres. Norway, Prussia, and America are the countries with which this branch of trade is maintained. It forms a principal part of the traffic of the place.

The basin and harbour afford accommodation to the vessels until they pass through the canal, or discharge their cargoes. The larger class unload here, and the proportion of their goods destined for Glasgow are carried through by means of lighters,—boats built expressly for canal navigation. There are, besides these, three private wharfs on the banks of the Carron.

The want of accommodation at the port has been long complained of. Proposals and plans of enlargement were made many years ago, when the canal did not yield a fifth of its present revenue. In 1838, effective measures were adopted. The late Earl of Zetland and the Forth and Clyde Canal Committee employed Mr Macneill, civil-engineer in London, to take surveys, and to submit a report of improvements. His report has been adopted, and, since April 1838, 200 artificers and labourers have been employed in working it out. The report embraces the following particulars, 1. the changing of the direction of the Grange burn. 2. The formation of a wet dock on the south-east of the present harbour, 27 feet in depth, and of such dimensions as to contain forty sail of the largest class of steam and merchant vessels. The sea lock, to shut the dock, is proposed to be 300 feet long and 70 broad. The formation at Bristol of a lock a few feet larger, deprives this one of the boast of being the largest in the world, and leaves it only the second place. 3. The deepening of the River Carron, so as to allow canal traders drawing nine feet of water to arrive and depart at low tide. 4. An enlargement of the easter timber basin, and a junction betwixt it and the wet dock by means of a canal ten feet deep. Above twenty acres of land have been allotted for these improvements; and, by 1843, they are expected to be in such a state of forwardness as to admit vessels into the wet dock. The facilities afforded to shipping will thus be greatly increased; and as Grangemouth has every local advantage from its being the east port of Glasgow, and its close communication with the German Ocean, it will possess every accommodation to invite the resort of commerce.

The canal does not communicate immediately with the Forth, but is connected with it by the river Carron. The course of this river has undergone many changes. At one period it flowed

about half a mile east of its present course, giving name to the farm of Carron Flats, and encircling in its windings the Inches, Easter and Wester. More recently, its course was north and west of the town. Its bed in that direction may be distinctly traced. To secure a ready approach to the canal, the river was straightened by means of a cut. The alluvial matter, through which the Carron flows, has been accumulated in a long progress of years, and invites the labours of enterprise to convert it into fertile fields. It was lately contemplated to reclaim the ground on both sides of the river, and surveys have been taken, extending from Bo'ness to Higgins Neuck, which hold out the stimulating prospect of 2800 acres of the richest soil.

The distance from the quay at Grangemouth to the outmost beacon at the mouth of Carron, is reckoned about a mile and a-half. Vessels entering the canal were formerly conducted up the Carron by pilots. About fifteen persons generally held license of pilotage from the Trinity House of Leith. The occupation of this class is now, however, superseded by the employment of small steam-boats, which tow the vessels from the water mouth, thus rendering them less dependent upon tide and wind. Two steam-boats are used for this purpose.

Grangemouth was made the seat of a custom-house in 1810. It extends over the out-stations of Alloa, Stirling, and Kincardine. Its officers consist of a collector, comptroller, clerk, two landing-waiters, locker, six tide-waiters.

The following tabular views of the nature and extent of the trade, convey a more correct idea of it than any description which could be given, of the total number of ships, &c. &c.

Number of Vessels which passed through the Canal during the year 1830 to 1839, inclusive :

	1830.	1831.	1832.	1833.	1834.
To Port Dundas, .	1421	1402	1210	1314	1402
From sea to sea, .	184	165	151	182	226
Intermediate, .	221	222	211	214	239
	1826	1789	1472*	1710	1867
	1835.	1836.	1837.	1838.	1839.
To Port Dundas, .	1478	1810	1710	1705	2204
From sea to sea, .	239	267	224	244	276
Intermediate. .	285	328	348	423	479
	2002	2405	2282	2372	2959

* 1831 being a year of great commercial distress in Glasgow, may account for the great decrease in 1832.

Average of first five years,	1732 $\frac{1}{10}$
Average of second five years,	2404
Average of the ten years,	2068 $\frac{1}{10}$

Number of Vessels and Tons of Grain which entered the Port of Grangemouth during the following years:—

Vessels.	1830.		1831.		1832.		1833.		1834.	
	Ves.	Tons.	V.	T.	V.	T.	V.	T.	V.	T.
British,	594	28834	389	19077	403	12789	489	16213	428	16756
Foreign,	43	8263	49	10250	4	617	5	761	8	1187
	637	37117	438	29327	407	13406	494	16974	436	17943
	1835.		1836.		1837.		1838.		1839.	
	V.	T.	V.	T.	V.	T.	V.	T.	V.	T.
British,	525	25394	736	40564	590	30256	721	38728	1021	54402
Foreign,	4	457	5	713	22	2762	13	1012	72	7806
	529	25851	741	41277	612	33018	734	39740	1093	62208
Average of first five years,					481 $\frac{1}{2}$ vessels, 22053 $\frac{1}{2}$ tons.					
Average of second five years,					742 $\frac{1}{2}$ 40422 $\frac{1}{2}$					
Average of the ten years,					612 $\frac{1}{10}$ 31686 $\frac{1}{10}$					

Tons of Pig-Iron brought east by the Canal from Kirkintilloch Railway during the years

1835.	1836.	1837.	1838.	1839.
Tons.	Tons.	Tons.	Tons.	Tons.
5379	4248	4834	9535	9295

There are regular traders on the canal from Port Dundas to the principal ports on the east coast of England and Scotland, say to London, including the Carron Company's vessels, 12; Hull, 4; Newcastle, 6; Leith, 11; Dundee, 8; Aberdeen, 5; Montrose, 2; Arbroath, 3; Alloa, 3; and to Rotterdam, 3.

Their return cargoes consist principally of, porter, flour, yeast, seeds, &c. from London; oil, iron, and paints, from Hull; colours, lead, mill-stones, and glass, Newcastle; grain, ale, &c. Leith; bagging, osnaburgh, and yarn, Dundee; worsted, woollens, and granite, Aberdeen; grain, Montrose; pavement and grain, Arbroath; ale, bottles, and aqua, Alloa; Geneva, cheese, &c. Rotterdam.

The officers of the Canal Company at Grangemouth are, a collector, overseer of works, and harbour-master.

Number of Ships, with their Tonnage and Men, including their repeated voyages, that have arrived at the Port of Grangemouth with Cargoes from Foreign Ports, in the year 1839, distinguishing each kingdom and state, and the general description of goods imported therefrom:

Kingdom or State.	Ships.	Tons.	Men.	General Description of Cargoes.
Russia, .	12	2164	89	Corn, tallow, flax, hemp, mats, tar, bristles, and wood goods.
Sweden, .	1	75	5	Manganese ore, pitch, and linseed cake.
Norway, .	25	2873	165	Wood goods.
Denmark, .	33	2416	160	Corn.
Prussia, .	30	5418	237	Corn, flax, timber, and other wood goods.
Germany, .	16	980	63	Corn.
Holland, .	12	945	56	Bark, cheese, madder, and Geneva.
Belgium, .	1	82	4	Bark.
Canada, .	7	2859	116	{ Timber and other wood goods.
New Brunswick,	15	4915	191	
Total,	152	22727	1086	

An Account, as above, for Vessels that have sailed from Grangemouth, with their Cargoes, for the year 1839.

Kingdom or State.	Ships.	Tons.	Men.	General Description of Cargoes.
Russia, .	5	749	38	{ Coals, glass, and bricks.
Sweden, .	1	75	5	
Norway, .	2	166	11	
Denmark, .	37	2660	180	Pig and wrought iron.
Prussia, .	9	1576	72	Coals, pig-iron, soap, and woollens.
Germany, .	19	1349	89	Pig and cast iron.
Holland, .	4	388	19	Coals, beer, pig and cast iron, and cotton manufactures.
Belgium, .	4	271	16	Pig-iron, linen-yarn, and alum.
France, .	15	1293	78	{ Coals, pig-iron, glass, and bricks.
Portugal, .	1	162	8	
Italy, .	1	191	9	
Turkey, .	1	242	12	{ Glass, woollen and cotton manufactures.
Van Dieman's Land, .	1	433	18	
Canada, .	8	3088	140	{ Coals, bricks, cordage, woollens and, cottons.
New Brunswick, .	5	1886	80	
Brazil, .	1	184	9	Coals, beer, glass.
Total,	114	14713	784	

An Account of Duties received at the Port of Grangemouth (including the Sub-Port of Alloa) for the years 1837, 1838, and 1839:—1837, L. 30,267; 1838, L. 25,054; 1839, L. 38,238; average, L.31,186.

An Account of Registered Vessels belonging to the Port of Grangemouth (including the out-stations of Alloa, Kincardine, and Stirling) at 31st December 1839:—Number of vessels, 179; tonnage, 25,561.

Grangemouth has been, for many years, favourably known for its shipbuilding. The general size of the vessels which are built varies from 90 to 250 tons. In 1839 the first steam-boat built in the port was launched, being a towing vessel for the port of Memel. To favour this branch of employment, an excellent graving dock was built by Lord Dundas in 1811. It is capable of taking in

two vessels of 300 tons each, and has a depth of water at spring-tides of fourteen feet. The manufactory of sail and rope is also carried on here, and considerable exports of these commodities made to the colonies.

The parish recently attached *quoad sacra* to the church of Grangemouth contains, exclusive of the ground occupied by the town and harbours, about 1035 acres Scots measure. The policy around Kerse-House comprises about 100 of these, and the remainder is divided into sixteen farms, giving an average of 58 acres to each. The aspect of the parish is that of a perfect plain, and no part of it exceeds eight feet above the level of the highest tides. With the exception of some plantations around Kerse-House, and a few trees at the farm-steadings, the district is totally destitute of wood, for the growth of which, from the unkindly nature of the subsoil, it is but indifferently adapted. The soil, to the depth of from 6 to 12 inches, is exceedingly uniform in its character, consisting of a rich and stiff alluvial clay intermixed with a very small proportion of fine white sand. Its quality, however, is considerably affected by the nature of the subsoil, which consists, to the depth of from $1\frac{1}{2}$ to 3 feet, of very hard and retentive ferruginous clay or till, which, when not broken up by the spade, is very slowly pervious to water. This is succeeded at a depth, varying from $1\frac{1}{2}$ to 4 feet, by a layer of a few inches of shells interspersed with sand, underneath which is a bed of blue clay or till, in which the remains of larger marine animals have occasionally been found.

The town of Grangemouth is three miles from Falkirk, of which parish it forms a part. The distance made the want of a church and burial-ground to be much felt. So far back as 1814, L. 750 were subscribed for the purpose of erecting a place of worship. The proposal was ultimately dropped, from a want of support on the part of the parish incumbent, whose church politics were opposed to the erection of chapels of ease. In 1827 the attempt was renewed, but also proved unsuccessful. No stated provision was made for the spiritual instruction of the town, until 1837. In that year, the late Earl of Zetland, from a due regard for the spiritual interest of the district, erected a substantial and commodious church. The edifice is of the Norman style of architecture, similar to that of Kerse House, from which it is not far situated. Accommodation is afforded for 700 sitters, the front gallery being reserved by the Noble founder for his family and dependents. No

free sittings are formally set aside for the poor; but an application to the kirk-session or local factor is all that is needed to secure seats for any who are not able otherwise to procure them. Ground to the extent of a Scots acre has been allotted for burial. As no vessel is permitted to pass through the canal on Sabbath, the town generally contains a greater proportion of unemployed sailors on that day than on week days; and, if a portion of the church, as in some other sea-ports, was appropriated for them, it might be the means of preserving them from spending the day in idleness and dissipation, and of inducing them to attend upon religious ordinances, as they could thus occupy these seats with the confidence of right, and might feel an interest in seeing them filled. The average attendance of hearers is betwixt 500 and 600, and the number who joined in communion in November 1839, when the sacrament was dispensed for the first time, was 200. There is a parochial district attached to the church, extending from one mile to one mile and a half, in each direction, and containing a population of about 1430. This district has been chiefly detached from the parish of Falkirk; a small portion having been taken from the parish of Polmont, which forms the eastern boundary. The incumbent holds a bond from the Earl of Zetland, guaranteeing an annual stipend of L. 80, to meet which the seat-rents and collections are applied. L. 20 of the collections are, by the voluntary arrangement of the session and managers, annually distributed for the relief of the poor of the district. Here dissent has obtained a long and a firm footing. The number of Dissenters fully exceeds that of Churchmen. There are a few adherents to the Episcopalian, Reformed Presbyterian, Scotch Independents, and Baptist persuasions, but the great body of Dissenters is divided betwixt the Relief and the United Secession. Some of the present householders, who are engaged in the public works, are Roman Catholics.

The parish is amply provided with the means of education. In 1827, there was erected by the late Lady Dundas, an elegant building containing a school-room for boys, and another for girls; an ante-room, which is used as a library, and dwelling-houses to the teachers. It is of the English cottage order, and is surrounded with extensive play-ground. There are few parish schools superior to this, in point of comfort and neatness of appearance. Salaries of L. 10 and L. 5 have been secured by the Noble founder to the teachers, and an yearly allowance is made for the education

of poor children. The munificence of the family also enables the teachers to distribute prizes for the encouragement of merit. English reading, grammar, Latin, French, writing, arithmetic, book-keeping, geography, and practical mathematics, are the branches taught in the boy's school. The average number of pupils is seventy. The fees vary from 4s. to 6s. per quarter. English, reading, knitting and sewing are taught in the female school; the average attendance at which is 36. Fees from 3s. to 5s. Both of these schools undergo examination by the presbytery of the bounds.

Besides those two, which are endowed, there are other three at present in the town, at which the ordinary branches of education are taught. One of these is intended chiefly for females. The charges in each are from 3s. to 4s. per quarter. The average number of children who enjoy the benefit of education is 206. The general evil of early attendance and early withdrawal from school is much felt here. They enter at four and a-half years, and withdraw at ten; thus entering before they are capable of profiting, and leaving when they begin to enjoy the benefit of instruction.

There is a library in the town supported by subscription. A public reading-room has also been in existence for many years. The town is lighted with gas. There are an Auxiliary Bible Society, a Temperance Society, and a Female Missionary Society, all in active operation.

Means of Communication.—There are several post-offices in the parish, a principal one being in Falkirk, and another in Grange-mouth. Camelon, Grahamston, and Laurieston, have each its sub-office. There are two daily posts to and from Edinburgh, Glasgow, &c. and also daily posts to Stirling, Alloa, and other neighbouring towns. Letters are delivered in Falkirk twice a day, and runners are dispatched to the country parts of the parish every morning. The inhabitants enjoy great facilities for travelling. During the summer, passage boats ply on the Union Canal to Edinburgh, to which there are three different opportunities every lawful day, and an equal number of night boats on their way betwixt Edinburgh and Glasgow. In winter, however, there are only two day boats besides the night ones. To Glasgow by the Forth and Clyde Canal, boats leave Lock No. 16, a mile from Falkirk, four times a day. Two coaches pass through the town

every day for Edinburgh, two for Glasgow, two for Stirling, one for Alloa, and one for Dunfermline and Kirkaldy.

Roads.—There may be about ten miles of turnpike roads in the parish; besides which, it is intersected in all directions by other public roads maintained from the Statute Labour funds.

Bridges.—The parish is connected with Larbert by two bridges over the Carron; with Denny by one over the water of Bonny; with Polmont by several bridges, and with Bothkennar by a drawbridge over the Carron, of thirty feet wide, to allow vessels to pass on the river. There are also bridges over different streamlets, and all are generally in good condition. The line of the Forth and Clyde Canal, in passing through the parish, is crossed by five drawbridges. Several highways are carried over the Union Canal by arches of stone.

Fences.—These in the upland parts consist chiefly of thorn hedges and stone dikes. In some of the subdivision hedges, oak, elm, and beech trees have been planted. This occurs particularly on the grounds of Mr Forbes of Callendar. In the Carse, ditches prevail in a great degree, which serve not only for the division of fields, but also for the draining off the superabundant moisture. Here also, there are hedgerows of thorn; and the willow tree abounds, attaining a considerable size.

Canals.—The Forth and Clyde Canal was begun in 1768,—opened to a certain extent in 1775, and completed in 1790. It commences at Grangemouth, and, passing westward through the whole length of the parish, leaves it half a mile to the west of Castlecary drawbridge, where it enters the parish of Cumbernauld. For the first three miles, it runs through a dead level of carse ground, but the rise then becomes so rapid as to require an elevation of twelve locks within the space of little more than a mile. The turnpike road formerly passed under the Canal, about a mile west from Falkirk, but, by a recent alteration of that road, the Canal is now crossed by a drawbridge.

The Union Canal, begun in 1818, and finished in 1822, runs through this parish to its termination at Lock 16 of the Forth and Clyde Canal, a distance of three miles. Here it falls 110 feet by means of eleven locks, within the compass of half-a-mile. At the same distance south from Falkirk, it passes through a tunnel cut out of the solid rock, nearly 1000 yards in length. This canal is used for the conveyance of passengers and of goods, coal, manure, &c.

Railway.—The line of the Edinburgh and Glasgow Railway passes through this parish for about eight miles, entering from Polmont on the east. It is to have a branch to the town of Falkirk, which is within half-a-mile of the main line. The operations commenced in this neighbourhood early in 1839, and within the parish they consist of works of considerable magnitude. Among these, may be mentioned a bridge consisting of seven arches, of great height, going at once over the burn at Castlecary and over the turnpike road there, and a viaduct of three arches, one of which, being 130 feet span, crosses the Union Canal near to its western termination. A tunnel also is, at present, in the course of formation, which, when finished, will extend to 845 yards under ground, will be 26 feet in width, 22 feet in height, and arched with brick. It is expected that this great undertaking, understood to cost a million of money, will be finished in 1842.

Ecclesiastical State.—The parish church is advantageously situated for the inhabitants of the town, and none of the villages, with the exception of Bonnybridge and Grangemouth, (which last, as already stated, has been erected into a parish *quoad sacra*) are more than a mile and a-half distant. In some of the country parts of the parish, the population may be still five miles from the church. But for upwards of a century past, considerable parts of it have been annexed *quoad sacra* to the neighbouring parishes of Slamannan and Cumbernauld.

Ancient documents show that, at one time, Denny, Slamannan, Muiravonside, and Polmont, formed parts of the then existing parsonage of Falkirk. Of the period when the three first of these parishes were disjoined, no record has been found; but Polmont was created a distinct parish in 1724.

The church of Falkirk was founded by Malcolm Canmore in A. D. 1057. It was rebuilt in 1810. The ancient fabric consisted of four lofty arches, with extended aisles in the form of a cross, the centre forming the area or body of the church, and surmounted by a steeple. The present church contains sittings for 1500 hearers. It is a square building, with windows of a Gothic form, and a circular gallery. The internal arrangements are convenient. The old arches and steeple were allowed to remain, and the former area now serves as a porch for the present church. The greater part of the pews were apportioned amongst the heritors; and one of them was set apart as free sittings for twelve poor persons.

Benefaction.—Some years ago, the sum of L.500 was bequeathed

to the kirk-session for behoof of the poor, by the late William Simpson, Esq. younger of Plean. The interest only of this sum is distributed, in terms of the will of the donor.

The manse was rebuilt in 1746, and since then it has undergone many alterations and repairs, particularly in 1835, when it received a considerable addition. The house and offices are now in good order, and contain ample accommodation for a family. Adjoining is an excellent garden. Being in the town and near to the church, the manse is convenient for the incumbent and the parishioners.

The glebe is somewhat less than the legal quantity of four acres, but the difference is made up by a portion of adjacent ground, which is rented by the heritors and possessed by the minister. The stipend being payable in grain, varies in its amount, and may be estimated on an average at L.400.

There are no Chapels of Ease, but there are two additional churches, one at Grangemouth and another at Camelon, whereof notice has been already taken. There is also a church in the town, formerly of the Old Light Associate Synod, now connected with the Establishment, to which no parochial district has been as yet assigned. There is no Episcopal chapel. At present, while the railway is forming in the neighbourhood, a meeting of Papists is held monthly in the town, where service is conducted by a priest from Stirling. The audience is chiefly composed of Irish labourers. There are several Dissenting chapels, one of which has already been noticed under the head of Laurieston. In the town, there are two of the United Secession Synod; one of the Relief, and one of the Baptist persuasion. Of the three former, the ministers are paid from the seat-rents, and their stipends may be estimated at from L.100 to L.200, including the value of their manses. Of the latter, the services are conducted by laymen, and the sittings are free. The Congregational church, a few years ago, became extinct, and their place of meeting is now occupied by the Baptists.

The average number of communicants at the Established Church, twice in the year, is from 600 to 700.

Divine service there, and also at the Dissenting chapels, is, in general, well attended, which can scarcely fail to be the case in such a numerous population. It is to be lamented, that some in the more respectable walks of life give only a partial attendance, while multitudes in the lowest ranks of society are altogether careless about the matter.

There is at present no general Society for religious purposes. The Established and the Dissenting churches, however, contribute liberally for these objects, in connection with their own congregations, or with the ecclesiastical bodies to which they respectively belong.

Education.—There are 25 schools in the parish, exclusive of Grangemouth. They are attended by about 1200 children. Two of these schools are parochial. In the one are taught Latin, Greek, and French. The salary is L.17, with a dwelling-house and garden; the school fees 7s. 6d. and 10s. 6d. per quarter. In the other, are taught English, at 8s. 6d. per quarter; writing and arithmetic, at 4s.; botany, geography, and animal physiology, at 5s. 6d. Salary, L.34. In this department, there is great want of school accommodation; the room being only eighteen feet square for 110 scholars. Some of the other schools have small endowments. At Bonnybridge, the teacher has L.4 per annum, arising from L.100 left by a Mr Scott for that purpose, about sixty years ago. He has also a school, dwelling-house, and garden, rent free. At Craighburn, the teacher has L.10 annually from Mr Forbes, besides a school and dwelling-house, rent free. At Laurieston, the teacher has a school and dwelling-house, besides L.5, 5s. of yearly salary from the Earl of Zetland. For the common branches of education, the fees are from 2s. 6d. to 4s. per quarter. Where the higher branches, such as geography, navigation, land-surveying, and mensuration are taught, the fees are 7s. 6d. and 10s. 6d. per quarter. One of the schools in Falkirk is for poor children exclusively, being usually attended by eighty, who are educated gratis. On Sabbath evenings, the children assemble for religious instruction. The teacher receives a salary of L.40 per annum, which is made up of an annual evening collection at the parish church; on which occasion, service is conducted by a Churchman and a Dissenter alternately, and any deficiency is supplied by private donations. It has existed since the year 1812, and has been of great benefit to the place. The people, in general, appear to be alive to the advantages of education; and there are no parts of the parish so distant as to prevent attendance at one or other of the schools.

Literature.—There are in the town of Falkirk several public libraries. The principal one, instituted in 1792, contains about 3000 volumes; a circulating library, 1200 volumes; and a Relief church library, 1000 volumes. A School of Arts commenced in 1827, in which there are weekly lectures during the winter season.

In 1839–40, lectures on Natural History were delivered. It has a library of about 600 volumes. There are two public reading-rooms for newspapers. There is at present no periodical work published here, although there are two printing establishments.

Charitable Institution.—The only one is an hospital for the maintenance of four aged persons. It was founded and endowed in 1640, by Lord Livingstone of Almond and Callendar. There belongs to it an acre of ground near the town, which is let for gardens, &c. Each of the inmates receives from the proprietor of Callendar ten firlots of oatmeal annually, besides a small sum in money. He has the right of filling up vacancies as they occur.

There are several private associations for the support of the sick, the infirm, and the aged. There was a savings' bank some years ago, but it does not now exist.

Poor and Parochial Funds.—In 1833, the poor's roll contained 160 persons. At present (1840), they amount to 250. All these receive regular supply, according to their circumstances of destitution, from 1s. 6d. to 16s. per month. Another class receive 3s. and 4s. per week. Besides these, sums to a large annual amount are bestowed in occasional relief. In the winter season, shoes and clothing are given in addition to pecuniary donations. In the course of the year ending June 1839, L.693, 14s. 3d. were expended in these different ways. The funds requisite for these supplies arise from the interest of L.600 lent out by the kirk-session about fifty years ago, dues of proclamations, mortcloth, collections at the door of the parish church, but chiefly from an assessment imposed annually by a meeting of the heritors and kirk-session in terms of law. This assessment for many years consisted of L.1 Sterling on every L.100 Scots of valued rent in the parish, and, along with a voluntary contribution from the inhabitants of the town and villages, amounted to L.200. This, in addition to the other funds, formed an adequate source of supply for the poor and incidental expenses. Of late years, however, the assessment has been rapidly increasing. In 1834–35, it was L.400; 1835–36, L.650; 1836–37, L.550; and, in 1837–38, L.950. The average collection at the church door for five years preceding June 1839, is about L.65. These contributions are decreasing to a great extent, in consequence of the enlarged assessments. A committee of heritors meets with the kirk-session monthly, for receiving applications for aid; and from the numbers who then apply, the reception of parochial relief does not appear to them to be degrading. A great defect prevails as to the proper management of the poor.

There is no superintendence of them, nor due investigation made as to their circumstances; and, for a few years back, almost every person applying has received assistance. From this cause, and from the idle and improvident habits of many of the lower classes, pauperism is much on the increase.

Prison.—To this we have already adverted. The number of prisoners during last year was about 80, who were in general immured for petty offences. The prison is strictly a place of confinement, having no airing-ground. Its government is vested in the Sheriff, and under him one of his officers acts as jailer, and supplies the prisoners with food, &c.

Fairs.—Exclusive of the Falkirk trysts, which, as already stated, are held in a neighbouring parish, there are nine annual fairs in the town of Falkirk. Of these, seven are for buying and selling horses and cattle, and two for hiring servants. The markets and fairs are held uniformly on Thursdays.

Inns, Alehouses, &c.—Within the parish, there are 6 inns and 110 other houses of public entertainment. So many houses of this description can scarcely be considered as favourable to the morals of the people.

Fuel.—This consists of coal, which is procured within the parish. An ordinary cart-load of 15 cwt., delivered in the town, costs, carriage included, 7s. 1d.

MISCELLANEOUS OBSERVATIONS.

Little remains to be added on this head. It will be seen from the foregoing statements, that much external improvement has taken place since the former Statistical Account was written. Husbandry has been carried to a high pitch of melioration in its various departments, and the facilities of internal communication are abundant. When the railroad now in progress shall be finished, these will be greatly enhanced. In order that the moral improvement of the people may keep some equality with merely outward advantages, an additional supply of pastoral superintendence would, humanly speaking, be very serviceable. This can only be accomplished, by a subdivision of the town and country parts of the parish into separate districts, each with its church and school. In this way, would the progress of crime and of pauperism be most effectually checked, and the present and future happiness of all classes of the community promoted.

Drawn up May 1840, revised March 1841.

PARISH OF FINTRY.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. WILLIAM GRIERSON SMITH, MINISTER.*

I.—TOPOGRAPHY AND NATURAL HISTORY.

Boundaries, &c.—The parish of Fintry is bounded on the north, by Balfron and Gargunnoch; on the east, by St Ninians and Kilsyth; on the south, by Campsie; and on the west, by Killearn and Strathblane. It is 17 miles due north from Glasgow; 16 miles west by south from Stirling; and 22 miles east by north from Dumbarton. In the county and other maps of this parish, it is made to touch the parish of Strathblane on the south-west, at the Earl's Seat, the highest point of the Killearn range of hills. These maps, however, are in that respect incorrect. The lands of neither of the proprietors of the parish, (for there are only two in it,) extend to the top of the Earl's Seat. The lands of Fintry, in that direction, are bounded by a small stream, the source of the Finglenburn, at the foot of that eminence, upwards of half a mile from the point in question. The name "Fintry," is said to be derived from Gaelic words, signifying "Fair land."

The parish extends from east to west about 6 miles, and its breadth from north to south is 5. It contains about 20 square miles. Its figure is irregular. The whole parish may be said to consist of three ranges of hills and two valleys. The southern range may be denominated the continuation of the Campsie hills, and the Meikle Binn. The middle range is the continuation of the Killearn hills, passing through Fintry and joining the Dundaff hills, in the parish of St Ninians. The northern range forms what is properly called the Fintry hills. These constitute part of a chain of mountains originating near Stirling, in the east, running in a direct line west by south, and gradually increasing in height and magnitude, till it abruptly terminates in a bluff shoulder in Fintry, behind the house of Culcreuch.

* Drawn up by the late incumbent, the Rev. James Coltart.

Hydrography.—Two rivers of considerable name and importance take their rise in this parish. One of them, the Carron, flows into the Frith of Forth at Grangemouth, on the east coast, and the other, the Endrick, after a course of upwards of twenty miles, falls into Lochlomond near Balmaha. From this, it will be understood, that Fintry lies on the highest ground in the district of country betwixt the friths of Clyde and Forth. The Carron, famous in Scottish history, rises on the hill in this parish due south from the church of Fintry, and washes the skirts of the Campsie hills, forming the boundary, for upwards of two miles, betwixt the parishes of Fintry and Campsie. It then divides the southern valley of Fintry, mentioned above, on the north side of the Meikle Binn, and, after a course of between two and three miles, it leaves the parish of Fintry, and forms the boundary between Kilsyth and St Ninians, passing Denny, &c. towards the Forth.

The Endrick takes its rise on the north range, or on what we have termed the Fintry hills. It is a very small stream, running east, till it reaches the parish of Gargunnoch. It then takes a southerly course, and, gaining strength by the accession of tributary streams from that parish, it separates it and St Ninians from the parish of Fintry, till it reaches the high road from Fintry to Denny. It then flows due west, through the northern valley of Fintry, or through what may be called Fintry Proper, about four miles, till it becomes the boundary betwixt the parishes of Killearn and Balfon, fourteen miles from Lochlomond.

The Endrick is a bold and rapid stream till it reaches the vale of Fintry, and wants only wood on its banks in the upper part of the parish, to vie with the most beautiful and sublime of our secondary Scottish rivers. It comes down with a deafening noise over its rocky channel; and, about two miles and a half to the east of the church, it pours its waters over a precipitous rock, 90 feet high, vulgarly denominated the “Loup of Fintry.” The grand appearance of this waterfall in dry seasons has been much injured by one of those circumstances, which, if they have added to the wealth of the country, have not increased its beauty. More than a mile above this fall, a great proportion of the river is carried off to supply a large reservoir, formed by the proprietors of two cotton-mills erected on the stream. When the river is much swollen, nothing can exceed the grandeur of the scene. In its usual state there are three breaks in this fall; but in a flood, it dashes over the rock upwards of thirty yards

wide, in one unbroken cataract, and rages with unbridled fury against the immense masses of unattached rock at the bottom, from which it, "rising wets with misty showers," the high banks on either side to a considerable distance.

About three-fourths of a mile east from the church, the Endrick receives a tributary stream, nearly half its size. This is called the Gonachan Burn. It originates on the north side of that hill south from the church, which we have said gives rise to the Carron. It separates, nearly through the whole of its course, the lands of His Grace the Duke of Montrose, from those of Mr Speirs of Culcreuch. The river Endrick, originating in this parish, and its course through it being but short, cannot be supposed to contain a great quantity of water. Yet it is the sole moving power of a considerable weight of machinery in the parish. The Culcreuch cotton factory is driven solely by its waters; at the same time, it would be by no means sufficient for this purpose, but that a reservoir of considerable depth, covering about thirty acres of land, has been constructed on the high ground, supplied wholly by the Endrick, and calculated to contain water sufficient for the purposes of the mill, for nearly six weeks.

Geology and Mineralogy.—The parish of Fintry affords a great variety of minerals, but never in great bodies. Coal in small seams is found in many places: granite occurs in detached fragments: there are also whinstone, freestone, and redstone, (locally called firestone,) jasper, and fine specimens of zeolite. Rocks are numerous, and so disposed, as to contribute not a little to the grandeur of the scenery. These rocks belong to the trap formation, and lie in a position very similar to those of Stirling Castle, Craigforth, and others in that neighbourhood. They exhibit the most sublime appearance on the northern or Fintry hills. They surround the western extremity of that range with much boldness, and on the south side, from some cause unknown, a great and rapid disintegration of the rock at its foundation seems to be going on. In the memory of persons still alive in the parish, a large portion of this rock began to subside. It is now separated from the hill by a chasm of more than a yard wide, and sunk below its original position upwards of thirty feet. Masses of rock fall down every season.* At

* The mass of sunk rock is, in extent, upwards of 60 yards in length, and from 10 to 15 wide. The shattered and fallen masses are from its extremities. In the centre, it remains solid and entire, as before it began to sink and separate from the hill. The writer of this article can imagine no more natural cause for this phenomenon than the action of water at the foundation of this rock, meeting with some soluble

the foot of the rock which encircles the western brow of the hill, there is a considerable extent of table-land, affording excellent pasture for sheep and cattle, and on the descent below this, starts out a knoll, commonly known by the name of the *Dun* or *Down*, of a singular appearance. Its front is a perpendicular rock, 50 feet high. The western extremity of this rock is one solid mass. Some fine specimens of zeolite have been found among the rocks on the hill. Several attempts have been made to find coal at its base, but hitherto, we regret to say, without success.

Zoology, &c.—Game abounds in the parish. In the lower parts of it, in addition to the more common kinds, we have a plentiful supply of pheasants. The roe-deer is not unfrequently to be seen bounding through the woods, and the moors are well stocked with grouse or heathfowl. The rocks give shelter to the mountain raven, hawks, and most of the smaller birds of prey. Among them also, the fox has long secured a very snug retreat. Polecats and other vermin of a like nature are not uncommon, and the harmless and beautiful squirrel has long had a residence in our woods. Our streams supply us with no other kinds of fish than the common burn trout, which is much esteemed, and affords excellent sport to the angler. It has been asserted, that salmon have been taken as far up the Endrick as Fintry; but this wants confirmation, and, indeed, a waterfall on the river seven miles below Fintry, upwards of twelve feet high, seems to falsify all such assertions. It has been lately proved in a court of law, that the Endrick above this fall is not a salmon river. There is abundance of trout, known by the name of par, (a species only found in salmon rivers,) below this fall; none above it.* Badgers, wild and martin cats are now extinct, though formerly abundant.

Botany.—This parish affords a very inviting field for the re-

substance, thereby undermining it, and occasioning the subsidence. In confirmation of this, we observe numerous springs of water issuing out, farther down the hill. Yet it must be acknowledged, that, if this water was impregnated with foreign substances, it has lost them all by filtration before it reaches the surface, for there can be no springs of water more pure or agreeable.

The heritor, Mr Speirs, mentions, that, before he went abroad in 1810, the fish called "par" was very numerous in Fintry waters, but that there were then no minnows: in 1809 or 1810, a noted fisherman took minnows from below Gartness, and put them above the fall: since that time pars have decreased, but there are now shoals of minnows. Mr Napier of Ballikinrain last year killed a sea-trout close to the borders of the parish; which proves that the fall at Gartness can be surmounted. There are plenty of eels in the waters. Mr Speirs also mentions that, within his recollection, great additions have been made to the birds hereabouts. Kingfishers, redstarts, crossbeaks, golden-wren, mistletoe-thrush, and starling, though even now not abundant, were formerly not at all known.

searches of the botanist. Its mountain ranges furnish almost the whole family of the ferns, the mosses, the lichens, and the gnaphaliums. Most of those plants which court the moist shade flourish in rich luxuriance, in its rocky cliffs and deep ravines. On our moor pastures may be found the *Gentiana campestris*, the *Empetrum nigrum*, and the common juniper. In the woods, we have the *Convallaria majalis*, and in great abundance the *Asperula odorata*. The *Adoxa moschatellina* has secured its residence among the shady moist rocks, and in the marshes, the *Myrica gale*. Hardwood of every description grows well in the lower part of the parish. Larch and spruces thrive in the plantations, though there are none of a very great age, all having been planted, it is believed, by the late Mr Speirs. The rarer and more recently introduced trees thrive well; for instance, *Abies Douglasiæ*, *A. Menzeziæ*, *Pinus Laricea Corsicæ*, *P. Sabinæ*, *P. Deodarus*, *P. excelsa*. The first planted in 1834 is 20 feet high.

II.—CIVIL HISTORY.

Secluded from social intercourse with the inhabitants of the surrounding district; shut up in a narrow yet pleasant valley, on every side, by hills, which, till within the last fifty years, rendered it almost inaccessible, the inhabitants of Fintry formed a little community by themselves. They were content to follow the occupations of their fathers, regardless of the changes and improvements taking place in other parts of the country. Father and son, through many successive generations, occupied the same farms, or inhabited the same cottages; and, if they did not retrograde in their circumstances and comforts, they were abundantly satisfied. There are instances of families occupying the same farms for several centuries. In such a primitive and simple mode of life, there is little worthy of recording. The same mode of farming and grazing, till lately, was universally observed. Yet Fintry is not without its honours. It gives a Baron's title to the principal proprietor of the parish; and there are still the remains of an old castle, which had evidently been a place of great strength, with its fosse and mound. It was the residence of the Grahams of Fintry in other times. It stood on the south side of the Fintry Hill, in full view of Sir John de Graham's Castle, in the parish of St Ninians, with which, no doubt, in less happy times, intercourse was kept up by signal. Sir John de Graham's Castle was burnt down by Edward I. after the battle of Falkirk. Both these castles have long been in ruins; and many of the stones have been removed, for the purposes of building dikes and

farm-houses in the neighbourhood. The dilapidation, of late years, has been so great, that it seems probable, in a short time, nothing will remain, to mark out the place where such monuments of feudal pomp and pride stood.

Two heritors, we have said, the Duke of Montrose and Mr Speirs of Culcreuch, possess the whole lands in the parish. Mr Speirs is the only residing heritor. Culcreuch House is situate at the west extremity of the Fintry Hill, and embosomed in wood, a great part of which is fine old timber; notwithstanding its bartizans and thick walls, it is commodious, and yields to no other residence in the country, for the venerableness of its appearance, and the beauty of its situation. The father of the present proprietor, the late Peter Speirs, Esq., a gentleman whose memory will long be cherished with much affection, not only by the parish of Fintry, but by all who had the happiness to live under him or near him, added much to the value of the property and the beauty of the place, by extensive plantations, all of which are now in a very thriving condition. Were His Grace to follow so good an example, by planting clumps and belts in the upper part of the parish, its appearance would not only be greatly improved, but the farms would be greatly benefited by the shelter for their cattle, which such plantations would afford. The Duke is the principal heritor.

Parochial Registers.—Parochial registers belonging to the session have been kept from a remote date. The oldest is dated 1632. Some of them have fallen into careless hands, and been much injured: some altogether lost. Marriages and baptisms have been registered for upwards of a century. A registry of deaths has been kept, only since 1826.

Births registered during the last seven years are	149,	average	21½
Marriages,	65,		9½
Deaths,	138,		19½

In the obituary of the above years, 39 are recorded to have died under twenty years of age; 23 above seventy—of the latter, two were seventy-eight, two eighty, one eighty-two, one eighty-three, three eighty-four, one ninety-one.

III.—POPULATION.

In 1755, the number of the inhabitants was 891. After this period, the farms were enlarged, by the union of several small farms. The consequence of this was, that many of the small tenants were ejected, and obliged to seek a subsistence for themselves and families, elsewhere. Accordingly, in 1791, there is a decrease of population to the amount of 348. About this time, however, a change of

an opposite nature caused a great increase of the population. Mr Speirs erected a large cotton factory, which required many hands; and, to accommodate this new population, a village was built, which now contains about 650 souls. In consequence of this, the population is now nearly double that of 1791.

Population per census in 1801,	.	958
1811,	.	1003
1821,	.	1002
1831,	.	1051

This population is disposed of as follows: families, 203. Of these, 24 families are employed in agriculture; 131 in trade, manufacture, &c.; 48 families not employed in any of the above ways.

IV.—INDUSTRY.

Agriculture and Rural Economy.—This parish contains about 12,800 imperial acres of land. Of these, about 1000 acres are arable; considerably upwards of 100 are under wood; and the rest, hill and moor pasture.

Rent of Land.—The arable land low down in the valley, on the banks of the Endrick, lets at L.3 per acre. Cows are grazed on such land for L.4; on hill pasture for L.2. The rent of the whole parish is L.3822. The annual value of the real property in Fintry, as assessed in April 1815, was L.4126.

Rate of Wages.—Labourers' wages are 1s. 8d. per day; mechanics, 3s. 6d.; tailors, 1s. 6d. with meat. Farm-servants generally live in the farmer's house; their wages are from L.10 to L.20 per annum. Women servants have from L.6 to L.8 per annum.

Husbandry.—Oats and barley are the staple grains, though the produce is far from equalling the consumption. There may be, at an average, about 840 bolls of oats; barley, somewhat more than a third of that quantity annually. The late Mr Speirs gave his tenants good houses and farm-steading. The Duke has begun to do so in his barony, in a very superior style. A house and farm-steading, lately erected in the upper part of the parish, cost, it is believed, nearly L.1000. New farm-houses are very much wanted.

Grazing.—Stock of sheep and cattle chiefly occupies the attention of the farmer. On this, he depends for the payment of his rent. The parish is well calculated for such kind of farming. It possesses very superior pasture, and is conveniently situated for the great cattle and sheep-markets, Falkirk, Balgair, &c.

There are only twelve farmers in the whole parish, and, with the exception of two, they all possess extensive sheep-farms. The stock of the whole parish consists of 4000 sheep, 900 cattle, and 200 milk cows. The cows are generally of the Ayrshire breed. One farmer keeps 25 cows; another 15; most of them 12. They make excellent butter and common cheese, for which they get a ready sale in the villages or towns in the neighbourhood. They rear a good many calves also. But they depend chiefly for their supply of cattle stock on the markets in the neighbourhood. In early summers, they purchase, at these markets, what stock they think will be sufficient for their summer's pasture. These, together with their winterers, (cattle laid on, in the end of the season, to consume their sprits and bog-hay, of which, in general, their farms yield a good supply, *) they take to one or other of the Falkirk harvest-trysts; and, if they succeed in securing L. 1, 10s. a piece for their summer's grass, they do not complain. It frequently happens, however, that they do not obtain nearly that sum. The cattle-market has been, for years back, quite a game of chance. Sheep are a more steady and a more sure stock. Our hills raise excellent lambs, for which a ready sale is got from the butchers in Glasgow. The wool, too, of late years, has yielded a high price; and altogether, from such stocks the farmer has a better prospect of a fair remuneration. Open drains are now cut very commonly along the sides of our hills, which have very much improved the sheep pasture, by carrying off the superfluous moisture.

Manufactures.—Allusion has been made to a large cotton factory in this parish. It was erected by the late Mr Speirs, upwards of forty-five years ago. It occasioned a very great change in the aspect of the parish. In some respects, it may have been an advantage to the parish. It has perhaps occasioned the improvement of our roads, and it promotes a readier sale for much of our farm produce. But it is much to be feared, it has hitherto been of no benefit to the proprietors. It is at a great distance from coals. It is eighteen miles from Glasgow; and cotton and yarn are carried, by a very hilly road, from and to it, at a very great

* The most abundant source of meadow hay is the Carron Bog, an immense track of meadow land on the banks of the river Carron, commencing in Fintry, and thence passing into Kilsyth and St Ninians. This meadow extends in length fully three miles, and averages in breadth about 400 yards; though in some places its breadth is little short of a mile. It contains 356 acres. The hay it produces is excellent, and so abundant, that it supplies not only the farms to which it is attached, but much of it is sold to farmers not so well supplied, at the rate of from L. 1, 5s to L. 2 per acre. When sold in the prepared state, it brings from 4d. to 6d. per stone, according to the state of the rye-grass crop.

expense. It contains upwards of 20,000 spindles, and employs constantly 260 hands. The mill people of Fintry are quiet, sober, and industrious.

In the village, a distillery was erected by Messrs Cowan and Company in 1816, and is now in active operation. It distils annually 70,000 gallons of whisky, entirely from malt. This whisky is chiefly carried to Glasgow, where it commands a ready market, having long maintained a high character. There is, also, a small wool factory in the parish; but since the wool has risen to so exorbitant a price, it has scarcely been in operation.

V.—PAROCHIAL ECONOMY.

For several years, a public coach ran from Kippen, through Fintry, thrice a week to Glasgow; but, for want of encouragement, it is now withdrawn. There is no post-office in the parish, nor any nearer than Campsie, Balfron, or Kippen, the nearest of which places is distant from Fintry six miles. But we have carriers of various descriptions to Glasgow, every alternate day.

Ecclesiastical State.—The church is a very neat, plain building, with a tower on the west end. It was built in 1823, and contains 500 sittings. It is three-quarters of a mile from the village, but quite in the centre of the parish. Indeed, with the exception of eight families, all are within a mile and a half of the church. It is an oblong square, with a gallery in one end, and the pulpit in the other. It is now sufficiently large; but if the population should be increased, it might easily be enlarged. The average number of communicants is about 380. There is no other public place of worship in the parish. The few Dissenters that are in it, go to one or other of the meeting-houses in Balfron.* The manse is a new building, and promises to be a very convenient and good house. The old manse has been converted into offices. It was built in 1732. The glebe contains nine Scotch acres, all now arable, and can be let at L. 3 per acre. The stipend is 44 bolls meal, 5 bolls, 3½ pecks barley, and L.24, 10s. money. L.91, 17s. 6d. is drawn from the Exchequer.

Education.—There is one parish school. The salary is the maximum, with a dwelling-house, and ground for a garden to the teacher. There is also a Sunday school in the village well attended; and under the superintendence of the minister. A free

* There are about thirty Dissenters in the parish, including two Bereans and four Roman Catholics. A few of them belong to the Relief; but the greater part to the United Associate Synod.

school has lately been erected in the village for the benefit of the parish, but chiefly for the children of those employed at the cotton-mill. The sum of L. 3000 was mortified for this purpose by the late Mr John Stewart, who carried on a mercantile business in Fintry for nearly fifty years, and died in 1836. The building is elegant and commodious, and includes a house for the teacher. The school is, at present, attended by about 100 day-scholars, and from 50 to 60 evening scholars. Mr Stewart also left L. 500 to form a fund for a Savings' Bank in Fintry.

Literature.—There is a small subscription library in the parish, which was established about nine years ago. The books were read with eagerness, for two or three years after it was opened, but they are now much neglected. The taste for reading has decreased.

Poor and Parochial Funds.—The number of persons receiving parochial aid, is from 9 to 16. The highest allowance that has been given, for years past, is L. 1 per quarter. A cart of coals in addition is given to the most needful, in very severe winters. Some get 15s., some 10s. or less, according to their necessities. There is no regular assessment in the parish; but for the last ten or twelve years, the heritors have assessed themselves voluntarily in a small sum, varying, according to circumstances, from L. 10 to L. 20. With this exception, the poor are supported wholly by collections at the church, amounting to about L. 30 per annum; the interest of a fund of L. 400, and by mortcloth and proclamation dues. The whole expenditure (including session-clerk, precentor's, and bell-man's salaries, &c.) amounts to about L. 60 per annum.

Inns.—There are five licensed public-houses in the parish.

Fuel.—Coals are generally carted twelve miles, from Kirkintilloch, by a very hilly road, at the rate, for some time past, of L. 1* per ton; or from Bannockburn or Banknock still farther. There are coals at Campsie, distant only eight miles; but the others are preferred.

* They are now reduced to about 15s. per ton.

Revised March 1841.

PARISH OF GARGUNNOCK.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. JAMES LAURIE, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE ancient name of the parish is Gargowdno; its modern name, Gargunnoch. It is probably derived from the Celtic words *Caer-guineach*, which signify a sharp or conical fortress. A fortress of this kind, called the Peel of Gargunnoch, was situated near the north-east boundaries of the parish.

Extent and Boundaries.—The length of the parish is 6 miles, and its breadth 4 miles; and it contains about 20 square miles. It is bounded on the east and south by St Ninians; on the west, by Fintry, Balfron, and Kippen; and on the north, by Kincardine and Kilmadock. The Lennox hills, which run from Stirling to Dumbarton, extend through the breadth of the parish on the south. The greater part, by far, of the parish lies on the north side of these hills; and, from their base, the land slopes gradually till it runs into the level plain, or carse ground, which is bounded by the windings of the Forth. The height of the Lennox hills above the level of the sea, is about 1400 feet; and from their summits, there is one of the most extensive and finest views in Scotland, comprehending, perhaps, more than 12,000 square miles.

Climate.—The temperature of the atmosphere is mild, and the climate wet, but not unhealthy.

Hydrography.—There are in the parish a number of perennial springs, flowing from tilly or gravelly subsoils, resting on red and white sandstone rocks, which supply the inhabitants with abundance of excellent water. At the Burn of Boquhan, which forms the western boundary of this parish, there are two chalybeate springs, one on each side of the burn, perhaps little inferior to the Dunblane and Airthrey wells, though not so celebrated.

The Forth is the only river in this parish. Its average breadth, where it forms the northern boundary of the parish, is 60 feet, and its average depth 12 feet. There are several cascades on the north

side of the Lennox hills; one of them attracts particular attention in this neighbourhood; it is about one mile from the manse, and, in time of heavy rains, it has a grand appearance, and is heard at a considerable distance.

Geology.—The rocks of the Lennox hills are composed chiefly of trap or whinstone. In the gently sloping lands, between the hills and the carse, strata of red and white sandstone are found everywhere, under the soil and subsoil. Under the strata of white sandstone, there is abundance of limestone of different depths. It is the opinion of some men of experience, that there is plenty of coal on the estate of Gargunnoch; of which there are several indications, although no steps have been taken to ascertain the fact. There are also some veins of spar near the hills. There is great abundance of peat on the level parts of the Lennox hills; and trees have been dug out of the moss; which is an evidence that the hills, in ancient times, must have been covered with wood to their very summits.

The lands of the parish consist of various kinds of soil, which are denominated moor, dryfield, and carse. The moor consists of wet gravelly, and clayey soil; none of it is ploughed except a few acres near the sheep farm of Burnfoot, on the estate of Boquhan. The most part of the moor affords sound healthy pasture for sheep and black-cattle, in the summer months. The term dryfield is not descriptive of the nature of the soil, but is used merely to distinguish it from the moor and carse lands. The soil of the dryfield is, in general, sandy and clayey; but some of it is rich loam, where it joins the carse. The average depth of the soil of the dryfield is six or seven inches; it rests on a subsoil of gravel or till, and under this subsoil are found strata of red and white sandstone. The soil of the carse lands consists of three or four feet of mixed clay of excellent quality, which lies on a subsoil of yellow or blue-clay; but the blue clay prevails. And below this blue clay, a *bed of sea shells* is deposited about ten feet from the surface. This bed of shells, it is said, is found everywhere in the rich and beautiful Strath of Monteath, which is twenty miles long, and in some places betwixt three and four miles broad. In some places along the banks, where the carse joins the dryfield, the ground has the appearance of having been washed at one time by a river, or by the waves of the sea. These facts prove almost to demonstration, that the whole of this picturesque and beautiful strath, has, at a remote period, been covered with the sea; and after

the sea had receded, as it has evidently done in later times, from this part of the country, a forest, in the lapse of ages, must have grown. All this beautiful part of Scotland, both hill and dale, was covered with wood, and formed a part of the ancient Caledonian forest. We are informed by the history of the Romans, who conquered this country, and kept possession of it about 500 years, that the Caledonian forest was cut down by the Roman soldiers in the beginning of the third century. The marks of their hatchets have been seen on many of the large trees, lying beside their immense roots. And on the north side of the Forth, in the parish of Kincardine, where Mr Home Drummond of Blair Drummond, and Colonel Graham of Meiklewood, have cleared away the moss, to the depth of 12 or 15 feet—roots were seen as thick as trees in a forest. Part of a Roman spear was found on Colonel Graham's property, and also some smooth stones, in the shape of gun flints, which are supposed to have been used by the aborigines in flaying cattle.

Zoology.—Roe-deer breed in great numbers, in the glen of Boquhan, at the western boundary of this parish. They also frequent occasionally the glen of Leckie, which affords an excellent cover for game, and which the proprietor, Mr Moir, has with fine taste, and at great expense, beautified with winding paths and shrubs on both sides of the wooded banks of the burn. In the woods are seen, squirrels, foxes, polecats or founmarts, badgers, weasels, hedgehogs, hares, and rabbits. And besides the common species of small birds, there are pheasants, crows, jackdaws, magpies, woodcocks, wood-pigeons, grouse, partridges, snipes, wild-ducks, herons and hawks. The herons have, for time immemorial, built their nests on a row of Scotch firs, near the mansion-house of Meiklewood; but since the new house was built, they have taken their departure. The hawks build their nests on the almost inaccessible cliffs of Ballochleam. These are the falcon hawks; and gentlemen in several parts of England have sent repeatedly to take their young, for the purpose of taming them for hunting.

The cattle which are reared in the parish, are generally of the Ayrshire breed. Black-faced sheep are bred; because it is the opinion of the farmers, that this kind agrees best with the soil. Some very strong, handsome, and valuable horses of the Clydesdale breed, are reared. Hogs, both of a small and large kind, are bred.

The river Forth abounds with perch, pike, and eels; but trout and salmon are not so plentiful, since moss began to be cast into

the river. The time when the salmon go up to the higher streams to spawn, is in the end of October and the beginning of November; and they return about the beginning of January. There is abundance of fine trout in the burns of Boquhan, Leckie, and Gargunnoch; and likewise in the burns which form the boundaries of this parish, on the south side of the Lennox hills.

II.—CIVIL HISTORY.

We are informed by tradition, that, in the year 1745, Prince Charles the Pretender passed the Forth at the ford of Frew, breakfasted at Boquhan, and slept at Leckie.

Land-owners.—The chief land-owners are, Charles Alexander Moir, Esq. of Leckie, who is the first heritor of the parish. The barony of Leckie extends through the length of the parish, from the south side of the Lennox hills to the river Forth. It therefore contains moor, dry-field, and carse lands. The next heritor, in point of valuation, is Henry Fletcher Campbell, Esq. of Boquhan. The barony of Boquhan runs parallel with the barony of Leckie on the west, and has the same kind of soils. The third heritor is John Stirling, Esq. of Gargunnoch, who is a minor. The barony of Gargunnoch runs parallel with the barony of Leckie on the east. The fourth heritor is David Graham, Esq. of Meiklewood. The fifth is Henry Seton Stewart, Esq. of Touch. The sixth is Mr Young of Easter Culmore. And the seventh is; Mr Kerr of Mosshead.

Parochial Registers.—The earliest entry in the parish registers is dated 1615. The registers are voluminous; and, upon the whole, they have been regularly kept; but, owing to accident or carelessness, the registers of the last forty years of the seventeenth century have been lost. Since that time, many marriages, births, baptisms, and burials have been omitted to be recorded: and in consequence, several valuable legacies have been lost to the nearest heir.

Antiquities.—The Keir-hill was a fortified place, in the end of the thirteenth century. It is considerably elevated, and is of an oval figure, and has been surrounded by a rampart; it is near the confluence of two rivulets which unite at the east end of the village; and there must have been a ditch to the south. The circumference of the summit is about 140 yards. At the summer sacrament, the tent is placed at the bottom of the Keir-hill, and the people sit on its gently sloping side, and form an interesting sight. The Peel of Gargunnoch has been a much

larger fortification than the Keir-hill. It was situated on a rising ground about fifty yards from the Forth, where that river takes a direction to the north, and about fifty or sixty yards east from the mouth of the burn of Gargunnoch. It was surrounded by a rampart and a ditch. Part of the ditch is still visible on the south, where it communicates with the burn. There is not a vestige of the Peel now remaining: the plough passes over the place where it once stood; and the site must be pointed out to the inquiring stranger. The use of the Peel is supposed to have been for the protection of a ford, formed in the Forth by the influx of the burn. There was also a small fortress about three miles up the river, for the defence of the Ford of Frew. There is an account of the Peel of Gargunnoch, in the history of Sir William Wallace. This patriotic and brave man and his followers were in possession of the Keir-hill, from whence they sallied forth, and attacked and put to flight the English who were stationed in the Peel. Wallace and his men crossed the Forth, on their way to the moss of Kincardine, by the bridge of Offers, part of the ruins of which is still to be seen, about half a mile above the Peel. Between the old bridge of Offers and the Peel, and very near the new line of the Dumbarton road, a substantial and handsome suspension-bridge was erected nine years ago, by Colonel Graham of Meiklewood. He also made and repaired, at his own expense, a new line of road from the bridge, to the great road from Stirling to Callendar, a distance of two miles. A communication has thus been opened up, through this rich and beautiful strath of country. The public are much indebted to Colonel Graham, who, in this undertaking, has displayed a well-informed mind, and a most liberal and public spirit.

At Ballochleam, near the west end of this parish, a battle was fought between the Grahams and the Leckies, the date of which is not recorded. The late learned and accomplished Lieutenant-General Fletcher Campbell of Boquhan alludes to this battle in a curious manuscript left by him. "The ballad," says he, "that celebrated the battle of Ballochleam, was still sung by a lady of our days. The Leckies must have been of considerable numbers at that time, if they could cope with the Grahams. Ballochleam signifies *the hollow of the leap*. In the hollow of one of those fields, searching for limestone, an old tenant found some pieces of brass armour, with the points of spears, and a great quantity of different kinds of bones. He said he intended to go on, but a thought came that he might raise the plague." There was also a tower belong-

ing to the Grahams, who were Barons of Boquhan. The ruins of this ancient tower were dug up, about eighty years ago, in the field of Old Hall; and at that time, some aged men remembered the old iron door and grated windows. The glen of Boquhan is so grand and romantic, with wild and beautiful scenery, that it is sometimes called Trosachs. About a mile above the glen, the burn which descends from Ballochleam has washed out, in the soft freestone rocks, some very curious shapes, resembling wells and caldrons.

Mansion-houses.—Mr Moir of Leckie has lately built a very elegant, commodious, and beautiful house, after the plan of the ancient English baronial mansion-houses. It stands on a higher situation than the old mansion-house of Leckie, and has a commanding view of the picturesque and beautiful strath of Monteath. And when the approach and pleasure grounds are finished, it will be one of the finest gentleman's seats in the country. Colonel Graham has built a very beautiful house at Meiklewood, near the site of the old mansion-house, and it is a prominent object among the fine old trees which surround it.

III.—POPULATION.

The population in 1795 was	956
1793,	890
1833,	906

The decrease is partly owing to the enlargement of farms, two or three having been put into one; and partly owing to emigration to other parishes. The number of the population in the village is 466; and in the country part of the parish it is 442.

The yearly average of births for the last seven years is,	24
deaths,	9
marriages,	12
The number of persons under 15 years of age,	305
between 15 and 30,	279
30 and 50,	207
50 and 70,	97
upwards of 70,	20
The number of bachelors and widowers upwards of 50 years of age,	16
unmarried women upwards of 45,	47

The average number of children in each family is about $3\frac{1}{2}$. The number of male servants below twenty, is 46; and above twenty, 50; and the number of female servants below twenty, is 43; and above twenty, 51.

Mr Moir of Leckie, Mr Campbell of Boquhan, and Colonel Graham of Meiklewood, are resident heritors. Gargunnoch House is at present occupied by Mrs Stirling of Gargunnoch, and her family. The number of proprietors of land of the yearly value of L.50 and upwards is 7.

IV.—INDUSTRY.

Agriculture.—The number of cultivated acres in the parish, imperial measure, is 5332; the number of acres which have never been cultivated, and which are in pasture, is 3762; the number of acres under wood, both natural and planted, is 574. The different kinds of trees which are planted, and which have been already mentioned under the head of Natural History, are, oak, ash, Scotch and silver fir, larch, plane, elm, willow, and birch. The indigenous or natural wood consists chiefly of oak, ash, birch, and willow. The woods are under good management, and are regularly thinned, pruned, and felled, at the proper periods.

Rent of Land.—The average rent of dryfield is from L. 1, 5s. to L. 2 per acre; and of carse land from L. 2, 5s. to L. 3 per acre. Mr Moir of Leckie has lately let some capital farms at L. 3, 3s. per acre. The average rent of grazing in the high lands, is at the rate of 15s. to L. 1, 5s. per ox or cow, and in the lowlands at the rate of L. 3; and at the rate of 6s. per ewe or full-grown sheep pastured for a year.

Wages.—The rate of labour, winter and summer, for different kinds of farm-work, is from 9s. to 10s. per week. The rate of wages for male farm-servants is from L. 12 to L. 18; and for female-servants, from L. 5 to L. 7 per annum. Masons' and carpenters' wages are 14s. per week.

Live-Stock.—Particular attention has been paid to the improvement of the breed of black-faced sheep, and of cattle of the Ayrshire kind.

With respect to the rotation of crops, it is as follows, viz. dryfield, three years pasture; if limed upon the sward, two crops of oats, but if not limed, one crop of oats; next, green crop of potatoes or turnips; then barley; and after that hay. The rotation of crops on the carse-land is, 1st, summer fallow; 2d, wheat; 3d, beans; 4th, barley; 5th, hay; 6th, oats. In some farms where the soil is dry, the tenant pastures two years.

Wedge-Draining.—The wedge drain is three feet deep, twelve inches broad at the top, and two inches broad at the bottom. Three kinds of spades and a cleaner are used in digging it; 1st, a common spade; 2d, a spade four inches broad at the point; 3d, a spade two inches broad at the point. The clay is dug out with a gradual slope on both sides to the bottom. The cleaner is in the form of a half-cylinder, about a foot or fourteen inches long, with a wooden handle, five or six feet in length. With this the

clay is cleaned out of the bottom of the drain. Then peat or hard clay, and sometimes *feal* or green turf, fourteen inches long, four inches broad, from three to five inches deep, and sloped at the ends, is pressed firm into the drain, with the grassy side downwards, leaving a space of five or six inches from the bottom; and then it is filled with clay to the top. The wedge drains are 15 or 18 feet apart. This mode of draining is a very great improvement. There is another kind of draining, which is a great improvement to the dryfield. It is called wedge or furrow-draining. The leading drains are, at least, three feet deep. They are laid with tiles at the bottom, with a foot of broken stones above them, somewhat larger than road metal. The other drains are two feet and a half deep, laid also with broken stones, about a foot or fourteen inches deep. The drains are about 15 or 18 feet apart. The wettest land may, in this manner, be made completely dry and valuable. Mr Campbell of Boquhan is of opinion, that the greatest part of the dryfield land in the parish might be increased almost half its value, by this mode of draining. And he strongly recommends this way of draining in all the carse lands, instead of the present system of wedge-draining; and the reason he assigns is that the *feal* or turf-draining continues good for six or eight years only, whereas the stone-draining will last for many years. Trench-ploughing above the stone drains is also a great improvement. This is done by a two-horse plough turning off the soil six inches; then by the trench-plough, drawn by four horses, immediately following, and opening the subsoil ten inches more, which makes a furrow sixteen inches deep to the very top of the stones.

Farms are let on leases of nineteen years, which is considered advantageous to the tenants. The farm onsteads are, in general, substantially built and commodious, and suited to the size of the farms. The dryfield and carse lands are conveniently enclosed with flourishing hedges, which are regularly pruned, and kept in good repair. There are whinstone, and red and white freestone quarries in the parish. The former are blasted with gunpowder, and the latter with plug, and feather, and wedges. Potatoes, turnips, and sometimes cabbages are cultivated with great success, being fine in quality, and abundant in quantity. There is not much meadow-hay in the parish. The most of it is rye-grass sown with clover.

The late General F. Campbell of Boquhan instituted the Far-

mers' Club in this parish, in the year 1796; and in 1807 he enriched it by his bequest of L.500 Sterling. Eleven parishes are entitled to the benefit of it, viz. Gargunnoch, Stirling, St Ninians, Kippen, Fintry, Balfron, Killearn, Drymen, Port, Kincardine, and Kilmadock.

V.—PAROCHIAL ECONOMY.

Market-Town.—The nearest market-town is Stirling, which is about six miles distant from the church and village.

Village.—There is only one village in the parish, very near the church, and situated on the eastern declivity of a small hill. The view from the top of the village, near the schoolmaster's house, is one of the richest and most beautiful of the Strath of Monteath. Almost the whole parish is seen from this commanding spot. The prospect is bounded on the south by the Lennox hills; on the west, by Ben-Lomond; on the north, by Ben-Ledi and the Grampian mountains; and on the east, by the Ochil hills and Stirling Castle. The whole strath, from Gartmore to Stirling, stretches out before the eye like a beautiful map, adorned with many gentlemen's seats, enriched with a vast variety of corn-fields, and rendered picturesque and interesting in a high degree by the windings of the Forth, and the delightful scenery of the low and rising grounds. The village is situated in the barony of Gargunnoch. The lower part of it was feued, between eighty and ninety years ago, at the rate of L.1 an acre; the upper part was feued at a later period, at the rate of L.2 per acre. Each feu has half an acre of ground attached to it, which is a great benefit to the inhabitants.

Means of Communication.—There is no post-office in the village; but a postman passes through the parish about ten o'clock in the forenoon, on his way to Kippen, and returns about three o'clock in the afternoon, which is a great accommodation to the parishioners. The great road betwixt Stirling and Dumbarton passes through the breadth of the parish, for the distance of four miles. A new line of road was made, some time ago, through the carse grounds, about half a mile from the church and village. No stage-coaches travel on this turnpike road, except the stage-coach from Kippen to Stirling, every Friday, which returns on the same day, for the accommodation of people going to, and returning from, the Stirling market. The bridges and fences of the parish are kept in good repair.

Ecclesiastical State.—The parish church is conveniently situated for the greater part of the population. It is distant from the eastern

extremity of the parish one mile and a half, and from the western extremity two miles and a half. It was built in the year 1774, and is in a state of good repair, and affords accommodation for 500 sitters. The seats of the church are free. The manse was built about the year 1750. It was enlarged and repaired in the year 1802; and nine years ago it was again enlarged and thoroughly repaired, soon after the present incumbent came to the parish, and it is now a commodious and comfortable house. The church and manse are situated on a rising ground, about 50 or 60 yards from one another. Few situations are more eligible, in point of romantic and beautiful scenery. The extent of the glebe, including the garden, is 7 acres; and the value of it is about L.20 per annum. The amount of the stipend is 148 bolls of oatmeal, and 2 bolls of barley, and L. 25, 11s. 3½d. from the Court of Exchequer, to augment the stipend to L. 150. There is L. 9, 1s. 1½d. for communion elements. The number of families attending the Established Church is 195; and the total number of persons of all ages connected with it, is 880. The number of Seceders is 8; of Episcopalians is 9. Divine service at the Established Church is well attended; and the average number of communicants is 340. The sacrament is dispensed twice a-year. The winter sacrament was commenced by the late faithful and much respected Dr Robertson of South Leith, when he was minister of this parish, upwards of forty years ago. The expenses are defrayed by collections at the church gate. Collections are made regularly for the five schemes of the General Assembly, and occasional collections for local societies, such as the Stirlingshire Bible Society, &c.

A Sabbath school was commenced eighteen years ago at the Burntown, by a pious female; and fourteen years ago, another Sabbath school was opened by the parish schoolmaster, and a member of the congregation, who is now an elder. It was patronized by some members of the kirk-session and others. The Sabbath school, so auspiciously begun, has continued to the present time; and last summer it was attended by nearly 100 children, and the school at the Burntown by 36.

State of Religion.—This parish has been highly favoured with many pious ministers; and at the time of the revivals of religion in Kilsyth, Muthil, and other parishes, in the year 1742, this parish was also visited with the outpouring of the Spirit. And it is mentioned in Mr Robe's Narrative, that about 100 individuals were brought to the knowledge of the truth at that time; and that

18 were converted on a Fast-day by a sermon preached by their aged pastor, the Rev. John Warden. Prayer-meetings were then held in several places of the parish, which continued for some time. The preaching of the Gospel and other means of grace have, through the Divine blessing, built up the people of God in their most holy faith; and have been instrumental, from time to time, in bringing many to Christ. During the last two years, the Lord has been pleased, in answer to many prayers, to pour out his Spirit on Kilsyth. This wonderful event made the people of God more anxious and more earnest in prayer for the Spirit; and the ministers whose parishes were visited in the year 1742, were very desirous that the Lord would again manifest his power and grace among them; and accordingly, in this parish, many week-day sermons were preached, which excited an interest in the people. Several of the neighbouring ministers were invited, and kindly came and preached on these occasions. The Rev. Charles F. Buchan, a devoted servant of the Lord, now minister of North Shields, was engaged last year, in the month of March, to assist the minister of the parish, during the summer months, in the earnest hope that the Lord would be graciously pleased to accompany with his effectual blessing the means employed. And it is with much gratitude mentioned, to the praise and glory of God, that several individuals have been brought to see their lost condition by nature, and to flee to Christ, the refuge set before them in the Gospel. Prayer meetings are again established in the parish; and it is humbly hoped, that this day of small things may be the beginning of a more plenteous effusion of the Holy Spirit!

Education.—There are three schools in the parish, one parochial and two unendowed schools. One of the unendowed schools is near the village, and is numerously attended; the other school, two miles distant, is attended by a small number. It is taught chiefly in winter, for the accommodation of the children in the neighbourhood. The parochial schoolmaster's salary is L.25, 13s. 3½d., which is the minimum. The plan of teaching in the parish school is excellent. The average amount of fees of the largest unendowed school is L.40 per annum. An infant school was begun in the manse six years ago, and is taught by Mrs Lawrie.

Literature.—A parish library was established ten years ago. There is also a library for the Sabbath school. A Tract Society was formed in February 1835. The tracts are distributed every month, one to each family.

Poor and Parochial Funds.—The average number of persons on the poor roll is 7 or 8; and about the same number receive occasional relief. The heritors, greatly to their honour, are very attentive to the necessities of the poor. The average sum allotted to each pauper is 4s. 6d. per month. Besides the weekly collections at the church gate, there are other funds, which have been mortified at different times, by charitable individuals, for the benefit of the poor. The funds for the poor consist of two sums bearing interest; one sum of L.266, 15s. 7d. is deposited in the Bank of Scotland; and the other sum of L. 365, is lent to the trustees of the turnpike road between Stirling and Dumbarton. The people of this parish are of an independent spirit, and they do not apply for parish relief, except in cases of extreme necessity.

Alehouses.—The number of alehouses in the parish is four.

There is one distillery, on the estate of Gargunnoch.

The people in general cultivate temperate habits, and very few of them drink to excess.

Fuel.—The fuel chiefly used is coal, brought from Bannockburn, the distance of nine miles. The price of a cart load of coals of 15 cwt., is 11s. 6d, including carriage. Peats are also brought from the moss of Kincardine, at 3s. 6d. per cart load. A few of the farmers bring peats on sleds from the Lennox hills.

MISCELLANEOUS OBSERVATIONS.

The present state of the parish is distinguished from that which existed forty years ago, by some striking variations and improvements. The elegant and beautiful house of Leckie, and also the beautiful house of Meiklewood, Colonel Graham's suspension-bridge over the Forth, and the fine level line of road through the carse lands of the parish, did not then exist. The new systems of wedge or stone draining had not then been introduced and brought into general operation. In consequence of this superior system of draining, and other modern improvements in agriculture, the land has increased above one-half in value; and, therefore, the rental of the parish has been more than doubled within the last forty years. The rental was then stated at L. 3000; it is now upwards of L.6500. The new line of road through the carse lands has been much improved, though it has lost much, in point of scenery. The old Dumbarton road, which, at the time when the last Statistical Account was written, passed by Touch, Gargunnoch House, the manse, and church, and village, Leckie, and Boquhan, to the village of Kippen, was in many places beautified with fine scenery;

and the views from the rising grounds were varied, extensive, lively, and interesting. It is the opinion of some gentlemen, that the internal communication of the parish would be much improved, were a new line of road made from Fintry, through the east end of Balfron parish, and by the foot of the Lennox hills, above Boquhan and Leckie, till it passes between the village and the church, and joins the new line of the Dumbarton road, near the new bridge which has been erected over the Forth. Others are of the opinion, that the new road from Fintry, instead of coming above Leckie, and past the east end of the village, should come down betwixt Boquhan and Leckie to the Dumbarton road. Were this line of new road to be made through the dryfield part of this parish to Fintry, it would be the nearest road from Dunblane and that neighbourhood, to the city of Glasgow.

March 1841.

PARISH OF KILLEARN.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. JOHN GRAHAM, D. D. MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—KILLEARN seems to be compounded of three Celtic words, *Kill-ear-rhin*, signifying the cell or church of west-point. This etymology is descriptive of the situation, which is at the western extremity of the Campsie Fells, a mountainous ridge running eastward from Killearn to Kilsyth, a distance of twenty miles. It is farther confirmed by the circumstance, that the rising ground, a little below the site of the church, near the confluence of Enrick and Blane, still bears the name of Rhin, or Point.

Extent.—The parish is of an irregular figure. Its length is 12 miles; its breadth, where greatest, 4, but at an average $2\frac{1}{4}$. It contains 27 square miles, and probably 17,000 acres. It is situated in Strathenrick, now the western district of Stirlingshire, but originally a part of Lennox, or Dumbartonshire.

Topographical Appearances.—The lowest part of the parish, at the confluence of Enrick and Blane, is about forty feet above the

level of the sea, and eighteen above that of Lochlomond; into which the united rivers flow after a course, in a direct line, of five miles. The Enrick forms the northern boundary of the parish, for eight miles nearly, dividing it from the parishes of Drymen and Balfron. Its course is rapid, and its waters peculiarly turbid in time of floods; hence probably its name, Enrick, is a compound of the Celtic *aun*, or *avon*, *ruadh*, the red river. Along its bank, there is a narrow slip of alluvial soil, the most fertile and valuable of the parish. Receding from this, the ground gradually rises, forming a sloping tract of arable land, varying from one to two miles in breadth. The village, with the church, and Buchanan's monument, is situated in this tract, on a rising ground commanding an extensive prospect. The limit of the arable ground is about 500 feet above the level of the sea; at one place, Tamnetherskins,* the height above that level exceeds 600. Still higher, is another belt, rising about 200 feet farther, and extending about a mile in breadth; which, though, in some places, shewing marks of the plough in former times, is now kept permanently in pasture. The surface is generally mossy, incumbent on white freestone, and producing coarse grass where it is marshy, and stunted heath where it is dry. Above this, is the mountainous ridge, composed of trap rock, and rising to the height of 1200 feet above the level of the sea. Except in some steep places, particularly in the Corrie of Balglas, the rock is concealed by soil formed of the debris of trap, whose rich verdure is a striking contrast to the dark heath below. It produces white clover, and the finest grasses in abundance; some patches of it, at an elevation of 800 feet, seem formerly to have been under tillage.

Hydrography.—At the southern extremity of the parish, where it meets Kilpatrick, there is an artificial lake, covering about 150 acres,—a reservoir to supply water during summer to the Partick mills, on the Kelvin near Glasgow,—as the sources of that river were taken to form the summit reservoir of the Forth and Clyde Canal. Besides the Enrick and Blane, already alluded to, there are many rivulets descending rapidly from the mountain's brow, and forming numberless cascades in their course. Of these, the finest is in the glen of Duilt, near Killearn House, where in a deep wooded ravine, amid many smaller falls, the rivulet rushes

* Tamnetherskins is a corruption of the Celtic words *Tam-na-uriskin*, the mount of goblins. *Tam* is a common Celtic affix to places. It may be traced as a primitive root in many languages, *e. g.* *tumulus* in Latin is the diminutive of it, and *tumeo* is a verb formed from it. The original idea is a mount, a small round eminence.

over a perpendicular precipice of sixty feet. In the same neighbourhood, the Carnock, another rivulet, has worn a channel seventy feet deep, through red sandstone.* There are also many cascades on the rivulets of Ballikinrain and Boquhan, the steep banks of which have been planted by the proprietors; and numerous walks have been made along them, that the scenery may be seen to advantage.

Minerals.—The base of this district is the old red sandstone. In the rising ground, a variety of strata is exposed to view by the action of the mountain streams, consisting of clay, lime, and free-stone. Of the last, which is uppermost, some quarries are wrought for building houses; and one quarry near Ballikinrain, if we may judge from the excavation, must have been of repute, formerly, for mill-stones. About ten pairs are still disposed of annually; but they are reckoned inferior, as they wear too rapidly. Near the mill-stone quarry is a spring, holding lime in solution, and petri-fying the moss on its brink. The mountains are all caped with trap rock, which seems, at some remote period, to have been forced upward through the sandstone in a state of fusion. During the same eruption, many fissures were made, extending like radii from the centre of the mountain down to the valley. These fissures were also filled with fused trap, and furnish excellent materials for the roads of the district.

In the trap formation, near the south end of the parish, there is a singular chasm, called the Wanzie. A transverse section of a hill, running east and west, seems to have slipped off, probably from the partial decay of the subjacent sandstone leaving it without support. The chasm is 346 feet in length. The width where greatest is $10\frac{1}{2}$ feet, and where least $2\frac{1}{2}$ feet. The depth at present is about 30 feet at a medium; but as the bottom is filled with rubbish, it must have originally been much greater. It takes a zig-zag direction, and it is easy to mark the exactness with which the angles and surfaces, on one side, answer to those on the other. There were many fissures in the same hill, which have been filled up by the tenants since the introduction of sheep. Near the north corner of the hill, there is still one left open, running in a zig-zag direction, 185 feet in length, and generally 6 inches in breadth.

* Most names of places are Celtic, and significant. The chasm of Carnock is called Ashdow, a corruption of *Uisk-dhu*, black water, from the dark appearance of the rivulet, as the rays of the sun rarely reach it, on account of the high precipices and overhanging woods. Carnock is a diminutive of Carron, and signifies little winding river. Dualt flows through mossy ground; hence its origin *dhu-alt*, black rivulet. *Avon* or *Aun* is the same in sense and sound with the Latin *Amn-te*.

Attempts have often of late, as well as formerly, been made to find coal in this parish and neighbourhood. That they have always been unsuccessful, is what should be expected from the mineralogy of the district. The Grampians, a primary range, stretching from Dumbarton to the east coast, are accompanied on the south by a secondary ridge, at a distance varying from five to fifteen miles. Strath Enrick is the western portion of the intervening track between those mountainous ranges. The base is the old red sandstone, in which coal is never found. In ascending the southern range, we lose the red sandstone, and find strata of lime, clay, and freestone, with occasionally a coal seam of three or four inches in thickness,—a plain indication that we are *rising to the coal measures*. The trap rock, forming the apex of the range, covers the previously existing strata. Passing that interruption, we enter on Campsie and Kilpatrick, the great coal-field of Scotland, crossing the breadth of the island, but lying all to the south of the secondary range. The searches for coal have been made, both by *boring* and *shanking*; but, with one exception, always in the lower parts of Strath Enrick; whereas common observation, as well as geological science, indicates that the higher regions should have been diligently examined, as, if a workable stratum of coal exists any where, it must be found near the verge of the trap formation.

Trees.—The arable part of the parish is generally well-wooded, as regards both shelter and ornament. Besides the plantations which surround the houses of proprietors, every glen and ravine is covered with copse-wood. The following table contains the dimensions of some remarkable trees, as measured at present, and as reported in the former Statistical Account. The yew trees are near the House of Ballikinrain; the others are on the estate of Killearn, near the old mansion-house.

Trees.	Girth 1794.	Do. 1834.	Cubic contents
Yew, berry-bearing, .	8 feet 0 inches.	8 feet 5 inches.	89 feet.
Yew, barren,*	10 8	10 3	103
Oak, ...	12 0	13 3	300
Silver fir, . . .	Not reported.	12 0½	302

These trees are all in vigorous growth, yet the increase during forty years is inconsiderable. There is a possible error in the comparison. The former reporter does not state the height where he measured the circumference. I made all the measurements at three feet above the ground. From many observations on yew

* The former reporter must have measured this tree, and perhaps the others, where thickest, as his measurement is greater than the present at three feet above the surface. At six feet, near the branches, the girth is eleven feet.

trees, De Candolle of Geneva calculates their average annual increase in diameter at one-twelfth of an inch,—which is more than double of what is shown in this table; and by that rule the age of the one yew is 404 years, and of the other, 492. If we assume that the increase of the oak, as in the table, is 15 inches in circumference, or 5 in diameter, during a period of forty years; then, on the supposition that its growth has been equable, the age of the tree is 424 years. The age of the silver fir is known to be about 100 years, while it nearly equals the oak, however old it may be, in circumference, and, from its greater height, exceeds it in cubic contents.

II.—CIVIL HISTORY.

Land-owners.—The greater part of the parish belonged, at an early period, to the family of Montrose, who still retain the superiority, though they have alienated all the property but one farm. Originally, the patron of a church was proprietor of the parish annexed to it. In 1429, six churches, Cambuslang, Tarbolton, Eaglesham, Luss, Kirkmahoe, and Killearn, were, with consent of the patrons, erected into prebends of the cathedral of Glasgow.* Vicars were appointed afterwards to these parishes; and, as an illustration of their comparative opulence, the stipend assigned to Killearn was fifteen merks, while that of the others was twenty.† In that erection, Patrick Lord de Graham is mentioned as patron of Killearn. In 1560, William, second Earl of Montrose, gave to his youngest son, by a charter of that date, the lands of Killearn, Ibert, and Drumbeg.‡ A descendant of that family represented the county in the British Parliament, during the earlier part of last century. When he entered England, he could not fail to observe the nakedness of his native land. He was the first in this district who attempted, by plantations, to improve the climate, and to adorn the country. Besides the usual forest trees, of which there are many beautiful specimens at Killearn, he was among the first that introduced the larch into Scotland. From want of timely thinning, the larch trees have not thriven, as they are remarkable only for extreme height; many of them being 100, and one

* Chartulary of Glasgow, quoted in Connel on Tythes, Vol. iii. Appendix, No. 13.

† The following table shows the rent of Luss and Killearn at later times:—

Luss,	Valued rent 1656, L.1500 Scots.	Real rent 1841, L.7000.
Killearn,	Do.	2840 Do.
		Do.
		6900.

‡ Douglas' Peerage—Article Montrose. These names continue still unchanged. Ibert, according to Dr Macleod of St Columba's, Glasgow, signifies the Well of Sacrifice, equivalent to Holywell in Ireland. Drumbeg is Celtic for little ridge.

114 feet high. In the former Statistical Account, they are said, when sixty years old, to be three feet in diameter; now when they are upwards of 100 years, I could find only one that was $3\frac{1}{2}$ feet, at the height of three feet from the ground. In 1750, the estate was sold to Mr Scott of Glasgow, whose only daughter was married to Sir James Montgomery, Bart., Chief Baron of the Exchequer. That excellent man here, as well as in his native county of Peebles, patronized rural improvement, by feuing ground for the village, by enclosing his whole estate with hedges, and by giving leases generally of fifty-seven years, to enable his tenants to reap the benefit of their outlay on their farms. The result of these leases does not seem encouraging either to tenant or landlord. The farms were all let at a fair rent, varying from 5s. to L.1 per acre, and are all arable, except one farm. During the first twenty years, the tenants seem to have been industrious. According to the former reporter, "they were, on the whole, doing very well." Now, forty years afterwards, when some of the leases have expired, and the others will expire in the course of four years,—more than one-half of the tenants have become bankrupts, and have been ejected: only three are wealthy, yet their houses, fences, and lands, are behind the average rate of improvement.

The most efficient improver in this parish, and in others with which he was connected, was the late Mr Dunmore of Ballikrain. In the end of last century, he introduced turnpike roads, cotton manufactures, and a general system of planting waste ground. The manufacturing establishments were unfortunate, and have been abandoned; but his other rural improvements have been zealously followed by his son, R. D. Napier, Esq. the present proprietor. The other proprietors, in a descending series, are, Sir Archibald Edmonstone, Bart. of Duntreath; John Buchanan of Carbeth; George Wilson of Auchniven; Thomas B. Buchanan of Boquhan; William Finlay of Moss; Alexander Speirs of Culcreuch; William Macleroy of Glenboig; William Edmond of Ballochrain; the Messrs Provan & Co. of Ledlewan, and the Duke of Montrose,—all of whom have estates rented at upwards of L.50 a year, and most of whom are resident.

Eminent Men.—In the year 1506, George Buchanan, the poet and historian, was born at Moss, about a mile south from the church. Part of the house in which he was born, with a thatched roof resting on oak spars, remained till 1812, when a modern house was built on the site by the late proprietor, who made out

of the oak spars, a chair and table, to be preserved in memory of Buchanan's birth. An obelisk in honour of him was erected in the village in 1788. The height is 103 feet. The expense, which was defrayed by subscription, amounted to L.200 for building, and L.95 for scaffolding. It is said to be an exact copy of the monument erected at Boyne, in Ireland, to commemorate the victory of William III., in the year 1690.

Buildings.—The estate of Killearn was purchased in 1814, by John Blackburn, Esq. of Jamaica, who has recently fitted up an elegant mansion-house on the banks of Blane. Mr Buchanan also, last summer, finished a showy castellated mansion at Carbeth. The manse was built in 1825, and the church in 1826; both are comfortable and substantial. The expense of the former, including L.300 for offices built in 1815, was L.1100. The church accommodates 500 sitters, and cost L. 1050.

III.—POPULATION.

The amount of the population is slowly but steadily progressive. After the middle of last century, there was a temporary diminution, occasioned by the union of small farms; but this was more than compensated by the increase of the village, which anciently contained about twenty families, clustered near the church. About the year 1770, Sir James Montgomery laid the foundation of its improvement, by granting building-leases of 999 years. The rent was L. 2 per Scotch acre. The extent varied from two roods to six acres. As the village is far from fuel, and even from running water, it did not seem a place favourable for the establishment of manufactures. It was desirable, however, to prevent the introduction of pauperism; and for this purpose, by the suggestion of the late Rev. James Graham, it was stipulated, that each possession, as originally let, was to remain entire, and to be occupied by only one family. As the proprietor was non-resident, this stipulation was not strictly observed. When Mr Blackburn purchased the estate of Killearn in 1814, he expressed his approbation of the restriction, and his intention to enforce it. In 1830, he raised an action before the Court of Session, against those who would not dismiss their subtenants. By that time, there were two families at an average on each possession; and in many cases, the practice had continued, for upwards of forty years. Several tenants, trusting to the plea of prescription, resolved to litigate the point; but before they entered the Court, a compromise was proposed, and ultimately agreed to, on the intervention of the

minister, viz. that subtenants should be allowed, provided they be natives of the parish, or strangers who had previously acquired a legal domicile by three years' industrial residence. This limitation, by excluding vagrants, secured every good purpose of the original stipulation in the lease, while it allowed the tenants to enjoy the full benefit of their existing buildings. The village is scattered and irregular; yet, as the generality of the inhabitants possess fixed property, they are free from the vices and vicissitudes of a manufacturing population. The number of inhabitants, at different periods, is shewn in the following table:—

	Village.	Country.	Total.
1755,	—	—	959
1769,	74	854	948
1794,	223	750	973
1831,	388	818	1206

The register of baptisms and deaths is not correct; that of marriages only can be depended upon. During the last seven years there have been 56 marriages, and, consequently, 8 at an average every year. In this list are included those marriages, where both parties, or at least the males, resided in the parish. During this period, 20 female parishioners were married to males residing in other parishes: but of these, none are included in the present list. It were desirable that this rule should be observed, as otherwise, the same marriage may be twice reported, where the parties reside in different parishes.

There may be one illegitimate birth in the parish, annually, at an average.

It is not probable that any great difference will take place in the number or condition of the inhabitants, either in the village or country. The following particulars are taken from the Government census of 1831:—

Inhabited houses,	-	182
Families,	-	215
Males,	-	623
Females,	-	583
Population,		1206
Families employed in agriculture,	-	59
trade, crafts, &c.	-	69
All other families,	-	87
		215

The character of the parishioners is decent and pious, occasioned mainly by the constant intercourse subsisting between householders and their domestics. Farmers, as well as villagers, sit in the same apartment with the inmates of their houses, and eat

with them at the same table. Kindly feelings are thus generated between masters and servants; while the latter are prompted to diligence, and prevented from irregularity, by the presence of the former.

IV.—INDUSTRY.

Agriculture.—Of the 17,000 acres given as the probable extent of the parish, not more than 7000 are at present under the plough; but additions are annually made to the arable district, and some thousand acres might still be brought into cultivation. In the present depressed state of the markets, it is advisable to expend capital in improving the ground already arable. The most fashionable and most profitable improvement, is what is called furrow, or frequent draining. While every proprietor has commenced operations on the clay retentive soil, which abounds in the parish, Mr Blackburn has taken the lead. His drains are only sixteen feet asunder, and filled with broken stones. The effects of his system are now visible on a farm of 200 acres, which, from being drenched with moisture in winter, and from being baked with the heat of summer, was of little value either in crop or pasture; but now, in consequence of draining and deep ploughing, it produces luxuriant crops of turnips and grain. In the latter years of his life, and since his death, in 1840, his son, Mr Peter Blackburn, has extended draining to every part of his estate. He erected, in 1837, a kiln for burning drain tiles, which yields about 500,000 annually.

Plantations and Pasture.—There is little natural wood in the parish. The extent under plantation, is about 1140 acres. The object of proprietors is to convert these plantations into copse, filling them entirely with oak, and cutting them, every twenty years: yet, as oak bark has fallen to about L. 8 per ton—less than half of the war prices, and as there is a growing demand for fir, especially larch, it is probable that the latter will be more extensively planted. The annual value of wood sold, is about L. 400. It may increase considerably beyond that sum, as a great part of the oak copse is not arrived at perfection.

The ground that is waste, or in permanent pasture, extends to 8860 acres, and admits of some improvement by draining marshes, and by sheltering exposed ground by artificial plantations—even though not partially brought into cultivation.

Rent and Produce.—Farms vary in extent from L. 560 a-year down to L. 35, besides some small possessions occupied by retired

farmers and by tradesmen. Among all of them, there is diffused a spirit of improvement. Within the last thirty years, the produce has been doubled: still much remains to be done. The soil is far from that state of fertility, of which it may be made capable, as the best patches near the village are let at L. 1, 12s. per acre, while the average of the whole arable land is about 15s. The rent of the whole parish may be stated as follows:

Arable,	7000 acres at 15s.,	L.5250	0	0
Hill pasture,	8860 do.	1250	0	0
Plantation,	1140 do.	400	0	0
17,000		L.6,900	0	0

The following statement of the gross produce is perhaps near the truth :

1. Crops.

	Imperial acres.	Produce per acre.	Total produce.	Total value.
In oats,	1500	30 bushels at 2s. 6d.,	45,000 bushels,	L.5625 0 0
barley,	360	36 do. 3s. 6d.,	12,960 do.	2268 0 0
wheat,	60	40 do. 5s. 6d.,	2400 do.	615 0 0
potatoes,	200 at L. 6 per acre,			1200 0 0
hay,	600 at L. 2 do.			1200 0 0
turnips, beans,				
tares, &c.	200 at L.5 per acre,			1000 0 0
				L.11,908 0 0

2. Stock.

Milk cows,	500 at L. 5.	L.2500	0	0
Fat cattle,	900 at L. 4, 10s.	900	0	0
Sheep, (Highland)	3000 at 10s.	1500	0	0
Horses,	40 reared annually at L.25,	1000	0	0
Sheep (English), swine and poultry, annual value of	900	0	0	
				6100 0 0
Total annual value of crops and stock,				L.18,008 0 0

In explanation of this statement, it may be mentioned that the dairy produce of each cow, could not be rated at L. 5, without including the value of calves reared (for none are fattened); that a half only of the horses annually reared is sold, the other half being required to keep up the stocks; and that a part of hay, and the whole turnips, beans, and tares, are employed in feeding cattle and horses, and ought not, therefore, to be placed to the credit of the farm, were it not compensated by the value of old sheep and old cows annually sold, for which no charge is made. The sheep are sold as great ewes in spring, or fattened in the end of the season. The old cows are sold with most advantage to Glasgow dairy men, when they are near calving, and there is a regular demand for such, as they give milk only one year, and as

they are nearly ready for the butcher, as soon as the milk season is ended.

Manufactures.—There was a cotton-mill in the parish, which was burnt down in 1806, and has not been rebuilt; and a printfield, which was abandoned about the same time, and is now become ruinous. There is now only one manufacturing establishment—the woollen factory of Mr John Jamieson, where 400 cwts. of wool are used annually, and where it passes through all the various processes, till it is converted into cloth.

V.—PAROCHIAL ECONOMY.

Ecclesiastical State.—The church and manse are both substantial and commodious. The former is well attended; the number of communicants is about 480; the male heads of families in communion, by the roll of last sacrament, are 153. There is no Dissenting place of worship in the parish; only 26 families are Dissenters; yet all of these, with one exception, occasionally attend the parish church. The last augmentation of stipend was in 1814, when the teinds were exhausted. The stipend consists of 184 bolls of meal, 4 bolls of barley, and L. 3 in money. The glebe consists of 8 acres of land, worth L. 12 annually. The value of the living, at an average of four years, is L. 150.

Education.—There is one parochial school in the village, with a salary to the master of L. 31 annually, and an allowance of L. 8 in lieu of a house and garden. There are three private schools in different parts of the parish, maintained exclusively by school-fees. The number of scholars is about 170: they are taught only the elementary branches. There is also a Sabbath school in the village, which is attended by nearly 100 children.

Poor.—The regular poor are 12 at an average, and receive about L. 4 each in the year: a few, perhaps six or thereby, receive occasional aid at Christmas, and at Lammas, when the sacrament is dispensed. The whole expense amounts to L. 54. The income consists of collections in the church, amounting to L. 50, and the interest of capital, L. 4.

MISCELLANEOUS OBSERVATIONS.

The parish, except in regard to education, may be said to be in a healthy state. A general spirit of improvement is promoted by the example and encouragement of the numerous resident heritors. One drawback is the distance from fuel, from manures, and from markets; and good roads are the only means of obviating that disadvantage. In 1768, the last minister introduced the no-

velty of bringing lime, on a single horse cart; prior to that time, lime was never thought of as manure, and coals were carried on horses' backs. Turnpike roads were introduced from 1790 to 1800; but the lines were very injudiciously chosen. The distance from the village to Glasgow, is seventeen miles; but it is believed a more level line can be found, two miles shorter. The extent of turnpike roads is about twelve miles; the surface is much smoother and firmer from the introduction of Macadamizing; and in consequence, the usual load of a horse is raised to a ton;—whereas till about ten years ago, it varied from 12 to 15 cwts., exclusive of the weight of the cart.

February 1841.

PARISH OF STRATHBLANE.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. H. BUCHANAN, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—FROM time immemorial, the name of this parish has been the same. It is derived from the Blane, a small stream which rises in the north-east extremity of the parish, and, after running southwards for more than three miles, turns to the west, and flows onwards, for more than four miles, towards the north-west. It is generally agreed, that Blane signifies “the warm river.” The strath of the warm river is peculiarly descriptive of the valley, which is sheltered, in almost every direction, from the violence of the winds.

Extent.—The average length of the parish is rather more than five miles. The breadth is about four. The surface comprises about 20 square miles. Its figure approaches the form of an oblong square.

Boundaries.—The parish lies in the south-west corner of Stirlingshire; and is bounded on the east, by the parish of Campsie; on the south, by Baldernock and East Kilpatrick; and on the west and north, by Killearn.

The Strathblane hills, forming a branch of what were formerly

* Drawn up by the late incumbent, the Rev. William Hamilton, D. D.

denominated the Lennox hills, stretch along the whole of the northern boundary of the parish. The Earl's Seat, the highest point, is 1400 feet above the level of the sea. The approach to the strath from the south is uncommonly romantic and enchanting. After proceeding for three miles along a road over rising-ground, where rocks and heath confine the labours of the husbandman, and seem to form the boundary of cultivation, the valley unexpectedly bursts upon the view of the traveller, and continues to unfold its beauties as he advances. The grassy hills with their varied glens, streams, and acclivities, rise before him to the elevation of 1300 or 1400 feet. On the west, the conical hill of Dungleigh, 400 feet high, clothed with wood to the summit, contrasts nobly with the bare and desolate hill of Dungleigh, 400 feet in height, which terminates the valley on the east. The sequestered seats of the gentry embosomed with wood; the comfortable homesteads of the farmers, with the neat cottages of the artisans; the lofty sheep-walks; the undulating surface of the valley, under its varied crops or agricultural processes; the roots of the mountains, in some places, sloping on to the banks of the Blane, and, in others, retiring to a distance; with a profusion of wood of every age and size,—give an idea of the magnificence of nature, adorned by the taste and industry of man, which is seldom seen and never surpassed, even in this country.

On the south side of the strath, and from 300 to 400 feet above the level of the sea, there is a stretch of table-land two miles wide, which runs across the whole breadth of the parish. This land was originally wild and moorish; but now, almost every part of it capable of improvement has been brought under cultivation.

The vale of the Blane, running from the south-east to the north-west, passes into the vale of Campsie on the east, and the vale of the Enrick on the west. The highest part of this valley is understood to be about 340 feet above the level of the sea, and the lowest part, 100.

The temperature and pressure of the atmosphere, together with the quantity of rain, may be estimated from the following abstract of the meteorological register at Carbeth, from daily observations with the barometer, thermometer, and rain-gage, at 10 A. M. Latitude, 55°, 59', 46"; longitude, 4°, 21', 20" west. This abstract has been kindly furnished by William Smith, Esq. of Carbeth-Guthrie.

Abstract of Meteorological Register at Carbeth, from daily observations with the barometer, thermometer, and rain-gage, at 10 A. M.; latitude, 55°, 59', 46"; longitude, 4°, 21', 20" west. Height above the level of the sea nearly 470 feet.

	Average Barometer.	Average Thermometer.	Rain.
1825,	29.30	49.69	36.844
1826,	29.34	50.10	32.213
1827,	29.26	48.75	45.958
1828,	29.24	50.28	45.304
1829,	29.30	47.26	37.098
1830,	29.22	47.71	45.885

1831.			
January,	29.29	35.10	2.563
February,	29.11	39.46	3.84
March,	29.17	43.87	5.6
April,	29.23	50.33	2.403
May,	29.42	54.64	1.786
June,	29.34	61.66	3.529
July,	29.39	63.25	4.189
August,	29.36	63.67	3.9
September,	29.33	56.86	3.32
October,	29. 6	53.19	9.802
November,	29.17	40.70	4.579
December,	29.	41.	4.08
Average,	29.25	50.33	49.591

From its lower situation, less rain falls in the Strath, and the barometer and thermometer stand much higher there than at Carbeth. Fevers are rare, and when they appear, seem to be generally imported from other places. Bilious affections, inflammation of the lungs, and consumptions are frequent. But these probably arise from the exposure to which many of the people are subjected in the course of their occupations, and from their inattention to the means requisite for preserving their health, and not from any noxious quality in the climate. The climate in the valley is uncommonly salubrious.

Hydrography.—The whole parish abounds with perennial springs. The only known mineral spring is in the farm yard of Ballewan. The water resembles the Spa.

The parish is adorned with six lakes. Loch Ardingning, containing 60 imperial acres, is without any artificial ornament; Craigmaddie, containing 10 acres; Dumbroch, 10 acres; Carbeth, 8 acres; Craigallion, 40 acres,—lie in romantic situations, and are beautified partly with natural wood and partly with plantations. Mugdoch loch, containing 25 acres, is ornamented with trees, and derives grandeur from the ancient castle of Mugdoch on its south-west point.

The spout of Ballagan, where the Blane breaks away from

the hills, is a cascade 70 feet in height, and forms a majestic object when the river is swelled with rain.

Geology and Mineralogy.—Dr Scouler, the accomplished Professor of Natural History in the Andersonian University, Glasgow, speaking of the general geological features of this parish, says, that “ Strathblane, along with part of Campsie, forms a strath or valley, consisting of a level plain, bounded by hills on each side. On contemplating the physical appearance of the district, it appears not improbable, that, at a former period, it was a fresh water lake; and that, subsequently, the barriers in the direction of Lochlomond have been broken down, and that its drainage has been accomplished by that event. The nature of the soil also contributes to establish this opinion; for it appears to consist of sand, gravel, and other comminuted fragments of the neighbouring rocks. As calcareous rocks are found in some parts of the parish, it is natural to expect that the waters should be considerably impregnated with lime; and in one situation, near the manse, these waters are cementing the gravel into a firm conglomerate.

“ The fundamental rock of the parish seems to be sandstone; the old red sandstone of Werner. It is, however, observed in many places by the superjacent masses of unstratified trap. The sandstone is visible chiefly in the lower parts of the district, where several sandstone quarries have been opened. The hills in most places are covered with trap. The trap-rock appears, at a former period, to have covered the sandstone throughout the whole parish, and still does so in many places. In travelling from the manse to Milngavie, we detected many disconnected masses of trap, which must formerly have been continuous; nor need we be surprised at this, when we remember the rapidity with which trap decays in many places, and as we may see the process of disintegration going on under our eyes. It would be interesting to trace the sandstone in a westerly direction towards Benlomond, and ascertain upon what rock it reposes. It rests, in all probability, upon clay-slate, and forms the margin of the great coal-field of the west of Scotland. The Strathblane hills rest upon this sandstone; but are capped with masses of trap. At the beautiful little cascade of Ballagan, we obtained a fine natural section of these hills; a section which is probably 1000 feet deep, and accordingly clear and defined, as if it were a natural model, a coloured specimen of stratification. This deep section consists of about 230 beds, varying in thickness, from one to two inches to

10 feet; and consisting of many alternations of sandstone, limestone, and argillaceous limestone or marl. These are all in a state of rapid disintegration, and portions of them are detached and fall down almost every day.

"Jasper is found abundantly in the hills, both in horizontal and vertical veins. Stilbite, chalcedony, and zeolite, are occasionally found; but are not so plentiful as in the Kilpatrick hills. Two varieties of gypsum are found; the fibrous and the compact. The latter variety is of rarer occurrence; and is found among the strata exposed at the section of the hill at Ballagan. It usually occurs in amorphous masses of a yellowish colour, but exhibits a white fracture."

The strata are nearly horizontal. The vegetable soil in the lower part of the valley is argillaceous; in the upper part, arenaceous; and on the hills and high-grounds, it is composed principally of an argillaceous brown matter, mixed with the small debris of the trap on which it rests.

Zoology.—The parish abounds with game; such as hares and rabbits; partridges, black and red grouse; wild ducks, woodcocks, and pheasants. A few of the common roes are also found. Otters, weasels, stoats, polecats, wild cats, marten cats, and foxes are numerous. Buzzards, ring-tailed kites, goshawks, sparrow-hawks, merlins, ravens, hooded-crows, jays, magpies, and owls of different kinds, together with the smaller kinds common all over the lowlands, are frequently met with. Pike and perch abound in the lochs. Char is found in Dumbroch loch.

The gooseberry-caterpillar is very destructive in those gardens where the bushes are not dug round and plentifully manured in autumn.

Botany.—The banks of the lochs and the glens, from having escaped the operations of the plough, furnish fields exceedingly rich in vegetable productions. Among the rarer plants may be classed:—

Agrimonia *Eupatoria*
Antirrhinum majus
Arum maculatum
Campanula latifolia
Chelidonium majus
Chenopodium Bonus Henricus
Cicuta virosa

Epimedium alpinum
Erysimum Alliaria
Fontinalis squamosa
Geranium lucidum
Inula Helenium
Lobelia Dortmanna
Nymphæa alba

Nymphæa lutea
Polygonum Bistorta
Rubus Chamæmorus
Rumex sanguineus
Sedum dasyphyllum
Silene inflatus
Trollius Europæus

The great varieties in the soil contribute to the vigorous growth of several kinds of trees. The Scotch fir and larch thrive in very

different soils and situations. The Italian black poplar, the Huntingdon willow, and the oak attain to a great size. A beautifully shaped oak at Blairquhoss, four feet from the ground, is eleven feet in circumference. Another, near the same spot, forms an uncommonly noble specimen of the gnarled and knotty oak. Though it may be supposed to have seen seven centuries, it is still healthy and thriving. Four feet from the ground, it is fifteen feet eight inches round. The branches diverge at the height of nine feet, and cover a circle of 281 feet. In the garden of Ballagan stands a yew in full vigour; possessed of the finest figure; and supposed to be from 500 to 600 years old. Its circumference is ten feet. The Huntingdon willow grows most rapidly. One of these trees in twenty-three years has risen to the height of 45 feet. Two of these species, 70 feet high, at six feet from the ground, measure,—one, twelve feet, and the other, thirteen feet and a-half.

II.—CIVIL HISTORY.

David Graham, great grandson of the first of the Grahams on record, obtained from William the Lion certain lands near Montrose. His son, David, acquired, under the succeeding reign, by exchange of his lands in Galloway, from Patrick Earl of Dunbar, the lands of Dundaff and Strathcarron, and from Maldwin Earl of Lennox, the lands of Strathblane and Mugdock. The Castle of Kincardine, in Strathearn, having been demolished by the Marquis of Argyle, March 16, 1646, Mugdock Castle became the principal seat of the Noble family of Montrose. After the Restoration, when the Earl of Middleton and his associates were employed in subverting the civil and religious rights of their country, Mugdock Castle was one of the scenes of their bacchanalian orgies. During the persecution which followed, the Presbyterians were encouraged and patronised by Edmonstone of Duntreath, and the Episcopalian incumbent generously threw the shield of his protection over his harassed and helpless parishioners.

Land-owners.—The principal land-owners are, the Duke of Montrose; Sir Archibald Edmonstone; Mr Graham of Ballagan; Mr Stirling of Craigbarnet; Mr Graham of Ballewan; Mr Smith of Craigend; Mr Graham of Craigallion; Mr Buchanan of Carbeth; Mr Robison of Leddriegreen; Mr Smith of Carbeth.

The history of the Montrose family, in its most eventful eras, is interwoven with the history of the country. The following account of the Edmonstones of Duntreath has been obligingly fur-

nished by its present distinguished representative, Sir Archibald Edmonstone, Bart.

Edmonstone Family.—The name of Edmonstone first appeared in the county of Mid-Lothian in the beginning of the thirteenth century. Tradition would, indeed, derive it 150 years earlier, from an Edmundus of the family of the Counts Egmont of Flanders, who is said to have come to Scotland in the reign of Malcolm Canmore, and to have had a grant from David I. of the said lands, to which he gave his name; but there is no authority for this whatever; and it seems more than probable that the powerful race of Seton was the parent stock; as the whole district round was in possession of that family, and the arms are identical: and, as the earliest appearance of the name of Edmonstone is in a charter where Henry de Edmonstone is styled “Filius E,” this may have been the very Edmund who thus founded the family, and gave his name to the lands. In the middle of the following century, Sir John Edmonstone of Edmonstone appears a person of considerable importance, and was appointed by David II. coroner to the shire of Edinburgh in fee, accompanied by grants of lands in the county of Banff. His son, of the same name, was a person of still greater eminence, and was named a commissioner for negotiating with England, on three different occasions, during the captivity of James I. A. D. 1407, &c. He married the Lady Isabel, daughter of Robert II., and widow of James Earl of Douglas and Mar, who was killed at the battle of Otterburne. By this marriage he had two sons, Sir David, who succeeded him, and Sir William of Culloden, ancestor of the family of Duntreath. Sir David left two sons, of whom Sir James, the elder, died without issue male, and John, the younger, in whom the elder line of the family was continued, till the middle of the last century, when it became extinct by the death of the last male heir. This branch of the family continued in possession of Edmonstone, in Mid-Lothian, till late in the seventeenth century, when it was sold to the family of Wauchope, who still retain it; it resided, likewise, at Ednam, in Roxburghshire, a grant of Robert III. This last property has been purchased, within these few years, by the Earl of Dudley.

To revert to the family of Duntreath. Sir William Edmonstone of Culloden, second son of Sir John, as above, married the Lady Mary, daughter of King Robert III., who had been married three times previously; first, to George Douglas, Earl of Angus;

secondly, to Sir James Kennedy of Dunure, ancestor to the Earls of Cassilis; thirdly, to Sir William Graham of Kincardine, ancestor to the Duke of Montrose; and, lastly, to Sir William Edmonstone. By all four marriages she had issue; and, from the last, the present family of Duntreath are lineally descended. This lady is interred in a vault beneath the church of Strathblane, and an inscription was put up to her memory in the family vault of Duntreath, by the late Sir Archibald Edmonstone.

At what period the Castle of Duntreath was built, is unknown; but the whole of the district originally belonged to the powerful family of the Lennoxes. At the attainder and decapitation of Duncan, the last Earl of this family, together with his son-in-law, Murdac, Duke of Albany, and two of his grandsons, on the return of James I. from his long captivity, the property, some portion of it at least, was allowed to remain in possession of the Duchess of Albany, as heiress to her father; and she made a grant of the lands of Duntreath, erected into a barony, to Sir William Edmonstone of Culloden, and Mary, Countess of Angus, his wife, A. D. 1452, which grant was confirmed by a charter of James II., and it has ever since remained the principal seat of the family.

For the next century, the house of Duntreath continued in the highest degree prosperous. Its wealth and possessions had considerably increased, and appanages were bestowed on many of its junior branches, nearly all of which are now extinct. A succession of honourable alliances, too, had greatly tended to keep up its respectability. Sir William, (the fourth in descent from the first Sir William of Duntreath), who was killed at the unfortunate battle of Flodden, with King James IV., and the flower of the Scottish nobility and gentry, had been appointed steward of Men-teith, and constable of the Castle of Doune. His son, of the same name, was continued in the same offices by the Regent, John Duke of Albany, which he held for eighteen years; but an heritable grant of them having been conferred by James V. on Sir James Stewart, (ancestor of the present Earl of Moray), Sir William and his brother Archibald were much irritated at being thus deprived of what had now for so many years been in possession of their family, and a fray ensued in the High Street of Dunblane, in which Sir James was killed. This event occurred on Whitsunday, A. D. 1543. A pardon for this offence was afterwards granted to the two brothers under the Great Seal by the Regent, Duke of Chatelherault, and being connected with the

royal family, in consequence of his marriage with Lady Agnes Stewart, daughter to Matthew Earl of Lennox, (grandfather to Henry Lord Darnley, the unfortunate husband of Queen Mary), Sir William was made one of the Privy Council during the Queen's minority.

His son, Sir James, was appointed Justice-Deputy under the Earl of Argyle, Justice-General, and was named one of the assessors on the trial of the Earl of Gowrie, for the celebrated conspiracy against the liberty of King James VI., called the Raid of Ruthven, A. D. 1582; but he appears himself implicated in a plot of the same nature soon after. He was accused, together with three others of the names of Douglas, Cunningham, and Hamilton, of a design to convey the king to some place of confinement, till those lords who had left the country in consequence of their concern in the above conspiracy should be advertised. It was believed to have been little more than an idle conversation; however, the four were seized, and indicted for high treason. Sir James pleaded guilty, and threw himself on the King's mercy. The others convicted of having held this treasonable design, were executed. Sir James seems to have acted an unworthy part in this business; and, being pardoned, he retired to Duntreath, which he considerably enlarged. A stone, with his arms and cypher, but without a date, marks this. The estate, however, was mortgaged by his son and successor, William, to Sir William Livingston of Kilsyth, and considerable estates purchased in the counties of Down and Antrim, in the north of Ireland. Fortunately, however, his next successor, Archibald, resold part of the Irish purchases, and redeemed the estate of Duntreath, though the family residence continued to be, for above a century, chiefly at Red Hall, in a district called Broadisland, in the county of Antrim. This Archibald was a strict Presbyterian, and being returned member for the county of Stirling, in the Parliament which met at Edinburgh in 1633, in presence of King Charles I., he strongly opposed every effort made by that monarch for the establishment of Episcopacy in Scotland. He had two sons, William and Archibald. Of these the elder, known as the Dumb Laird of Duntreath, was disinherited, and put under the tutelage of his brother, on account of having been born deaf and dumb. He was, however, a person of great vivacity and cheerfulness, with a very retentive memory; and, according to a portrait which exists of him, of a handsome and intelligent countenance. It is record-

ed, moreover, that he had a strong sense of religion; and a tradition is preserved that he was endowed with the faculty of second-sight. He lived to a very advanced life. A tower at Duntreath, which he is said to have occupied, still preserves his name. The inheritance, in consequence of the infirmity of the elder, devolved upon the younger brother, Archibald. This gentleman followed the same line as his father, in opposing the tyrannical acts of the government, in their endeavour to establish Episcopal jurisdiction; and was fined and imprisoned for holding a conventicle in the private chapel of his house of Duntreath. After his release he retired to Ireland, and died in consequence of his exertions in defending the fort of Culmore, contiguous to Londonderry, at the period of the famous siege of that city by King James II., A. D. 1689. He was succeeded by his son and namesake, who appears to have resided chiefly at Red Hall, so that Duntreath fell into decay. He represented, I believe, the county of Antrim, in the Irish Parliament. He married, first, the Honourable Anne Erskine, daughter to David, Lord Cardross, ancestor to the present Earl of Buchan, by whom he had one daughter; and, secondly, Anne, daughter to the Honourable John Campbell of Mammore, second son to the unfortunate Earl of Argyle who was beheaded A. D. 1685. Her brother, John, succeeded to the dukedom of Argyle, on the death of his cousin, Archibald. By this marriage he had three sons and three daughters, and was succeeded by his eldest son;

Sir Archibald, created a baronet 1774, who married, first, Susanna, daughter to Roger Harenc of Footscray Place, in Kent, by whom he had five sons and three daughters; and, secondly, Hester, daughter to Sir John Heathcote of Normanton, in Rutlandshire, by whom he had no issue. Sir Archibald sat, for above twenty years in Parliament, for the county of Dumbarton, and the Ayr and Irvine district of burghs. He very judiciously sold the estate in Ireland, and purchased that of Kilsyth, in 1783, which had been forfeited by the Livingstons, Viscounts of Kilsyth, in 1715, and thus established and concentrated the family in their native country. He likewise began a liberal system of improvement upon his estates, which was carried on to a greater extent and completed by his successor. Sir Archibald died at the advanced age of eighty-nine, in 1807, and was succeeded by his eldest surviving son;

Sir Charles, who married, first, Emma, daughter of Richard

Wilbraham Booth of Lathorn House, in the county of Lancaster, Esq., and by her had a son and daughter; and, secondly, the Honourable Louisa Hotham, daughter to Beaumont, second Lord Hotham, by whom he had four sons and two daughters. Sir Charles represented the county of Stirling in Parliament, for several years previous to his death, which took place on the 1st of April 1821, in the fifty-eighth year of his age. He was succeeded by his eldest son;

Sir Archibald, the present Baronet, twelfth in lineal descent from Sir William of Culloden, the first of the branch of Duntreath. Sir Archibald married, in October 1832, his cousin, Emma, daughter of Randle Wilbraham of Rode Hall, in the county of Chester, Esq.

The Castle of Duntreath stands on the north side of the Blane water, near the opening of the narrow and beautiful strath to which that stream gives its name. To the south rises the conical hill of Dungoiach, covered with natural wood; and across the valley opposite, is another hill, clothed likewise with wood, called the Park hill. Tradition asserts that it was once intended to have built the castle here, instead of the valley below. The top certainly has been levelled, and a regular way formed up to it. The noble range of the Campsie Hills, which intersect the western end of the county of Stirling, is finely terminated above by the bold heads of Dumgoyne and Dumfry.

The castle is approached from the west through a detached gate-house, and is rather of a rude construction, built round a quadrangle. The north and east sides are completely in ruins, having been unroofed and left to decay about a century ago. In the former of these sides, is the chapel, of which, according to tradition, the gallery once gave way during the service, and several persons were injured. The southern front was never finished. In the south-eastern part of it, is the Dumb Laird's Tower. The castle is surrounded by a park or policy, of moderate extent, but very agreeably varied; and the scenery of the whole unites cultivation and romantic beauty, in no common degree.

Parochial Registers.—In consequence of the recommendation of the General Assembly, 1816, correct registers have been kept, since that time, of marriages and births. There is no register of deaths, and, prior to 1816, the registers of marriages and births were exceedingly irregular. The first entry in the register of baptisms is dated April 1685. Registers had been kept long before that period;

but perished through the negligence of those to whose care they had been entrusted.

Antiquities.—The castles of Mugdock and Duntreath are the only baronial residences of the feudal ages that remain. The buildings were large and capacious; and have been long in ruins. A castle belonging to the Earl of Lennox stood at Ballagan, but every trace of it was removed fifty years ago, when the stones were employed to build the garden wall.

An erect stone, on the north of the turnpike road to Campsie, marks the spot where, two centuries ago, Mr Stirling of Ballagan was killed by a miller of the name of Abernethy.

At a little distance from the south-east of the hill of Dungoyach, stand six stones. One rises six feet, and another five, above the surface of the soil. The rest are lower. They are placed irregularly, and seem intended to commemorate some important victory which our ancestors had achieved on the spot; but of which no tradition has reached modern times.

In 1800, a small enclosure, composed of stakes of oak and birch, was discovered under the surface of a moss at Craigend. The enclosure measured three feet nine inches in length, by twenty-two inches in breadth. The stakes were above five feet in length, driven closely together, and from the bruises on their sharpened ends, appeared to have been cut by a stone hatchet. There seemed to have been originally an entrance from the west; and a few pieces of wood indicated that the enclosure had originally been roofed. The enclosure must have been formed, before the moss covered the soil. It may have been intended as a place of shelter; but its diminutive size gives it rather the appearance of a prison, though the frail nature of the materials shows that it was very unfit for such a purpose.

Modern Buildings.—The church is a beautiful building of modern Gothic, reared in 1803. Carbeth, the property of Mr Smith, is an elegant building, finished 1810. Craigend, the residence of James Smith, Esq. completed 1812, is a magnificent edifice. There is one mill for grain of every description, furnished with a complete set of machinery of the most approved construction, and kept in good order. Calico-printing is carried on at Blanefield, according to the most recent improvements. At Dumbroch bleachfield, two spider wheels are employed, each thirty feet in diameter, and the company are masters of a process, which at once reduces the expense of bleaching, and improves the fabric and appearance of the

cloth. Were the Irish Board of Linen in possession of the secret, it would add prodigiously to the value of the linen manufacture of Ireland.

III.—POPULATION.

The average number of baptisms, 1729, 1730, and 1731, was 26. The average number for the years 1829, 1830, and 1831, was 24. If this be a fair criterion of the proportion of the population at these two periods, the parish must have been rather more populous a century ago, before the introduction of a large print-field and two bleachfields, than it is at present. This excess in the ancient numbers must have arisen from the great subdivision of farms, and the multitude of cottaries with which the parish then abounded.

From the enlargement of farms and the decay of cottaries, the population decreased.

In 1755 the population amounted to 797	
1795,	620
1811,	795
1821,	748
1831,	1030
1841,	1045

The recent increase is occasioned by the enlargement of the manufacturing establishments, which require a great number of hands.

The yearly average of births for the seven years ending Whitsunday 1831, was 7 $\frac{1}{2}$; of deaths, do. 14; of marriages, do. 7 $\frac{1}{2}$.

Three families of independent fortune reside for the greater part of the year in the parish.

There are seventeen proprietors of land of the yearly value of L.50 and upwards. Of these, eight are resident, and nine non-resident.

The number of bachelors and widowers above 50 years of age, 20	
unmarried women above 45,	13
families,	186
inhabited houses,	114
uninhabited houses,	4

There is nothing peculiar in the strength, size, or complexion of the people.

There are two insane persons, but none either blind, deaf, or dumb.

IV.—INDUSTRY.

Agriculture.—

There are either cultivated or occasionally in tillage, of standard imperial measure,	3150 acres.
Formerly cultivated, but now in pasture,	200
Never cultivated, but perpetually in pasture,	8200

Under wood, natural or planted,	2000 acres.
Lakes,	190
Occupied by streams,	100
by roads,	200
	14080

1000 acres might be profitably added to the cultivated land.

Plantations.—The most common natural wood is birch, arrans or alders, hazel, and willow. A great variety of forest trees are planted. The most common are, the Scotch fir, larch, oak, ash, elm, beech, Huntingdon willow, and Lombardy poplar. Great attention is paid to the woods. Most of the plantations are young, and give every promise of yielding their proprietors a rich return.

Rent of Land.—The average rent of arable land per imperial acre is L.1, 3s. The average rent of grazing is L.2, 10s. per cow, and 6s. per sheep.

The utmost pains are employed to suit the husbandry to the soil; and the farmers are perpetually on the alert to adopt new discoveries, and to improve their different agricultural processes.

Two crops of oats are generally taken. The second is sown down with perennial ryegrass. The third crop is ryegrass, followed by three years pasture. In some cases, the first crop is oats; the second is green crop of potatoes or turnips; the third is wheat or barley, sown down with grass seeds; the fourth is hay, followed by three or four years pasture.

Few portions of the soil require either embanking or irrigation. Draining is much needed: and both covered and open drains have been carried to a great extent. Within the last twenty years, about 300 acres of waste land have been reclaimed. The process most frequently employed, is to trench two spadings deep; smooth the bottom of the trench; and place the tough and heathy side of the upper spading in the bottom of the trench. As the trenches run in the direction of the declivity, the heathy surface, when removed, acts as a drain. The large stones that are turned out are used for dikes, and the smaller ones for covered drains. This trenching is executed for L.5 per acre. Before the crop is sown, each acre is limed at the rate of four or five chalders. The chalders of lime, according to the distance from the kiln, costs from L. 1 to L.1, 5s.

The duration of the leases is generally nineteen years. The farm-buildings and enclosures are generally in good repair. The tenants are suffering greatly from having contracted to pay money-rents. While the nominal rent remains the same, the great

reduction in the price of produce has rendered it nearly double. This may be remedied by fixing the rent of the arable farms in so many bolls of oats at the fiars prices; and the grass farms at so many sheep or cattle, at the average prices of the three Falkirk trysts.

Quarry.—The only quarry in the parish is of sandstone, which generally employs two men.

There is no fishing.

Average gross amount of raw produce raised in the parish of Strathblane:—

Acres.	Bolls.	Total.	Price.	
550 oats, . . .	4½ per acre,	2475	L. 0 16 0	L. 1980 0 0
140 barley, . . .	5 do.	700	1 1 0	735 0 0
60 wheat, . . .	7 do.	420	1 4 0	504 0 0
8 beans, . . .	7 do.	56	0 16 0	44 16 0
40 turnips, . . .	12 tons.	480	0 15 0	360 0 0
139 potatoes, . . .	24 bolls,	3336	0 8 0	1334 8 0
300 ryegrass hay, . . .	100 stones,	30,000	3 0 0	900 0 0
110 natural hay, . . .	75 do.	8250	1 15 0	144 7 6
290 milk cows yield L. 10 each, . . .				2900 0 0
100 young and old cows sold, each L. 6, . . .				600 0 0
250 cows grazed till fattened, each L. 3, . . .				750 0 0
67 score of sheep yields 60 score of lambs, per score L. 8, . . .				480 0 0
Each score of sheep yields 3½ stones of wool, at 6s. per stone, . . .				70 7 0
12 horses sold each at L. 18 . . .				216 0 0
Thinnings and periodical fellings of wood, . . .				200 0 0
Freestone quarry, . . .				12 0 0
Total, . . .				L. 11190 18 6

The gross produce is balanced by

47 men servants employed in farm work, each at L. 15, . . .	L. 705 0 0
Maintenance of do. each at L. 13, . . .	611 0 0
47 female servants, each L. 8, . . .	376 0 0
Maintenance of do. each L. 10, . . .	470 0 0
Nine shepherds, wages and maintenance, each L. 22, . . .	198 0 0
Wages to 10 labourers at 11s. per week, . . .	286 0 0
Keep of 88 horses for farm work, each L. 25, . . .	2200 0 0
Keep of 44 young and old horses, L. 13, . . .	572 0 0
Dung and lime for 250 acres at L. 5 each, . . .	1250 0 0
Rent for 3150 acres arable, L. 1, 3s., . . .	3622 10 0
Rent for grazing 250 fat cattle, L. 2, 10s., . . .	625 0 0
Rent for 67 score of sheep, each L. 5, 10s. . .	368 10 0

L. 11284 0 0

To this must be added the maintenance of 42 farmers with their families; wages paid to extra hands in harvest and other hiring seasons; and the wages paid to smiths, masons, wrights, saddlers, &c.

Manufactures.—An establishment for calico-printing employs 20 journeymen block-printers, who gain each, at an average, L. 1, 1s. per week, or L. 54, 12s. per annum; 20 apprentices, who gain each, at an average, 10s. 6d. per week, or L. 27, 6s. per annum; 30 male labourers, who gain each 10s. per week, or L. 26

but a few of the more stupid and dissipated are ignorant of its value, and allow their children to grow up without education. Many even above the age of fifteen read very imperfectly; twelve adults cannot read at all.

Literature.—A parish library was formed in 1817, which now contains nearly 700 volumes of standard works in theology and general literature.

A Young Man's Society combines the double object of a Mechanics' Institution and a religious meeting. On an evening of one week, a literary paper is read, and its subject discussed. On an evening in the succeeding week, a paper is read, and a subject discussed for the religious improvement of the members. This Society consists of fifteen members.

Savings' Bank.—A Savings' Bank was opened, January 6, 1832.

Poor and Parochial Funds.—The average number of poor receiving parochial aid is 11. The average sum allotted to each annually is L. 4, 10s. The collections at the church door annually, L. 30, 15s. Annual donation from Sir A. Edmonstone, L. 5. The interest on L. 515 saved by the managers of the poor's money, L. 12, 17s. 6d. The dissipated and improvident have no reluctance to ask parochial relief. The industrious, sober, and pious, regard parochial alimant as a disgrace. When reduced to poverty they are supported by the generous.

Fair.—A fair is held on the 10th of November, for the sale of cattle, but especially of those that are fed.

Alehouses.—There are six alehouses in the parish. They keep their customers in the most abject poverty, and have the most pernicious effect on the morals and the domestic happiness of those who frequent them.

Fuel.—Peats are occasionally used in a few houses: but coal is the fuel principally employed. It is procured from Campsie, Kirkintilloch, Baldernock, and New Kilpatrick; when laid down, costs, according to the distance, from 9s. to 15s. per ton.

Revised March 1841.

PARISH OF BUCHANAN.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

REV. WILLIAM FREELAND, MINISTER.*

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name and Extent.—THIS parish was originally called Inchcaile-och, from an island of that name in Lochlomond, where there had been a nunnery prior to the Reformation, and where the parish church remained for a century afterwards. It consists of several islands in the lake, and of a mountainous track on its eastern bank. In 1621, there was annexed a detached part of the parish of Luss, containing the lands of the old family of Buchanan. Near the mansion, was the chapel of Buchanan, which, being more commodious for the population, was used as the ordinary place of public worship, and gradually gave its name to the whole parish. Buchanan is bounded by Lochlomond, on the west ; by the parish of Arrochar, on the north : by Loch Katrine, and by the parishes of Aberfoyle and Drymen, on the east ; and by the river Endrick, on the south. There has been no measurement of the parish. It is supposed to be 24 miles in length, and 5 in breadth ; its area, including the islands and mainland, may be stated at 120 square miles, or 76,800 acres.

The annexed part is situated in the Lowlands of Scotland, consisting of fertile alluvial land on the bank of the Endrick, and of a track of ground gently rising towards the base of the mountains. Within this, is Buchanan House, the residence of the Duke of Montrose, with its extensive pleasure grounds and plantations. The rest of the parish is in the Highlands, and forms the western termination of the Grampian hills. It is a mountainous ridge, extending along the bank of the lake ; deeply indented, on the east, by Glendow, where the river Forth has its rise ; and intersected near the north end by Glenarklet, a vale extending from Loch Katrine to Lochlomond. This Highland district is rugged and barren, and at an early period, if we may judge from the names of

* Drawn up by John Graham, D. D. Killearn.

places, seems to have been chiefly used as hunting-ground. At the head of Lochlomond stands Benlui, (*Fawn's hill*,) where the deer had their coverts, and reared their young. When roused from their lair, they generally directed their course along the east bank of the lake. At Chonan-nish, where the ground became somewhat level and practicable, there the chase began; hence its name signifying, *now for the dogs!* If the pursuit were unsuccessful along the skirts of Benlomond, it often had a melancholy conclusion at Conichill, which forms the southern acclivity of the Grampian range, and whose abrupt precipices were fatal to the eager dogs; Conichill, or more properly Chonnakill, signifying *the dog's grave*. The most striking object is Benlomond. On the north, it is precipitous; on the south, setting out from the Inn of Rowardennan, on the bank of the lake, you ascend easily in three hours, walking over a space of three miles. When you reach its conical summit, overtopping every surrounding eminence, and elevated 3000 feet above the level of the sea, you have on the north an endless succession of mountains, like the billows of the stormy ocean; and on the south, you have presented before you, as on a map, the riches and beauty of the central district of Scotland, from the Western Isles to the Frith of Forth.

Islands.—Of the islands belonging to this parish, several are of considerable extent and value. Inchcailloch,* which once contained a nunnery and the parish church, is now, without house and inhabitant, covered with copse-wood. Inchfad and Inchcruin are arable and inhabited. Inchmurrin, the largest of the whole—being two miles long and one broad—is the deer park of the Duke of Montrose, containing about 200 fallow deer. The keeper cultivates some ground around his house. At the west end of the island, on a projecting eminence, are the ruins of a castle of the ancient Earls of Lennox; near which is a modern lodge, erected by the present family. There also are some islets, uninhabited, belonging to Mrs M. Buchanan of Ross.

Lakes and Rivers.—There are three small lakes within the parish: but they attract no notice in the vicinity of Lochlomond, whose beauties have been often described. It is 24 miles long:

* The names of places are Celtic. *Inchcailloch* signifying old woman's island; *Inchfad*, long island; *Inchcruin*, round island; *Inchmurrin*, the island of St Murrin, who was the tutelary saint of Paisley. The etymology of Buchanan is uncertain. Lochlomond is evidently the same name with Lacus Leman-us of Helvetia, in the time of Cæsar. Lomond, signifies bare hill or beacon. Benlomond was reckoned higher than 3000 feet, till the recent Trigonometrical Survey of Scotland.

the greatest breadth is about 7 miles. It is 22 feet above the level of the sea. Its outlet is the river Leven, which meets the tide-way, after a course of three miles, about a mile above its junction with the Clyde. As the Leven flows in a narrow channel, it is insufficient for the rapid discharge of any sudden influx of water into the lake. The level of the lake, therefore, varies with the season; it is lowest in the drought of summer; it rises when the rains of autumn commence; and reaches its maximum in the month of February. The difference between the summer and the winter level is about seven feet. In winter, the lake overflows much valuable land at the mouth of the Endrick; and if the rainy season sets in early and copiously, much damage is done to the natural hay and corn crops. In 1782, the harvest was late and rainy, and followed by an early and severe winter. The corn, before it was ripe, was covered with water, and then with ice. The upper part of the lake, from its great depth, never freezes; the lower part is occasionally frozen. In 1814, the ice was so strong between the mainland and Inchmurrin, as to admit travelling on foot. In 1740, the lake was frozen from Buchanan to Luss, so as to carry both men and cattle. It is understood that the surface of the lake is gradually and permanently rising. The cause is evidently the increasing bar at its outlet. The chief tributary rivers are the Endrick on the east, and the Fruin on the west, which flow into the lower part of the lake, and deposit their alluvion near its mouth.

Geology.—The mountains, like the rest of the Grampian range, belong to the primary formation. Schistus is the chief mineral. Roof-slate and lime frequently occur; but neither are used, nor can be used, to any extent. The former is too heavy to pay for land-carriage, now that the duty is taken off slate carried coast-wise; the latter cannot be burned with advantage, on account of the distance from coal.

Zoology.—Wild animals abound, from the varied accommodation which the parish affords. Ptarmigan and white hares are found on Benlomond. The mountain eagle is still seen occasionally there. One was caught in a trap in 1836. Grouse is common on the bleak upland moors; but it is remarked that this species is giving way to black game, which seem to multiply with the increasing shelter of wood. Roes, for the same reason, are now common. Pheasants were introduced by the late Duke of Montrose, and have spread throughout the whole extent of Strath Endrick. Squirrels have recently come of their own accord. Hares

are numerous in Buchanan grounds, where they are strictly preserved. It may be observed, that the ground under crop bears a very small proportion to that in pasture, and that the depredations of wild animals are severely felt by corn-farmers.

Wood.—Though the woods in the parish, both natural and planted, are of great extent, there is no tree of remarkable size. There are many oaks from 10 to 13 feet in circumference. One near Buchanan House, at the height of five feet from the ground, is 14 feet in circumference, and contains 200 feet of timber. Another oak is 18 feet in girth near the surface, but immediately branches out into five stems, called *the Five Sisters of Buchanan*. These trees are supposed to be 300 years old.

II.—CIVIL HISTORY.

Family of Buchanan.—"The History of the Family and Sur-name of Buchanan," by Buchanan of Auchmar, contains the only ancient account of the parish. The founder of the family was Anselan, a native of Ireland, who is said to have arrived in the eleventh century. His descendants originally bore the name of M'Aslan, a corruption of Anselan, and were chamberlains to the Earls of Lennox. At an early period, they obtained a grant of part of the lands of Buchanan, which afterwards became the family name. In 1225, they received from Malduin, Earl of Lennox, a charter for Clarinch, an islet in Lochlomond, which was adopted as the war-cry of the clan. In 1296, "Malcolm de Boughcanian" appears in the list of proprietors of Stirlingshire* who swore fealty to Edward I. of England. In 1482, a younger son founded the house of Drumnahill, from which sprung, in 1506, the celebrated George Buchanan. In 1519, "Walterus Bucquhanan de eodem" conveyed to his son, Walter, the lands of Spittal.† In 1682, the direct line of male succession became extinct; and, in the absence of other competitors, the late Dr H. Buchanan of Spittal and Lenny, claimed, in 1826, to be chief of the family. The Buchanans are a numerous clan in the Lennox and adjacent counties. Besides the M'Aslans already mentioned, they recognize as clansmen some other branches whose names are common in this district, particularly the Zuils and the Risks,—originally soubriquets of individuals, but afterwards surnames of their descendants. The one was so called from the day of his birth, Yule, (Christmas); the other from the place of his resi-

* Nimmo's History of Stirlingshire, Appendix, No. 3.

† Claim by Francis H. Buchanan, M. D. 1826.

dence, the Risk (a bare knoll) of Drymen. Many of the Buchanans have settled and prospered in Glasgow, where they established a charitable society for the poor members of the clan in the Lennox and elsewhere, which distributes the interest of their capital, amounting to upwards of L. 500 per annum, among all their branches, whatever be their name. The family of Buchanan, though it flourished for upwards of 500 years, while Scotland remained a separate kingdom, was never distinguished in political transactions. One evident cause was the smallness of the family estate, which included only the lower part of the present parish. Their fame rests on their literary eminence. Besides the classical Buchanan, they can boast of Dr Buchanan, already mentioned, celebrated for his valuable works on the civil and natural history of India, (obit 15th June 1829); and Dr Claudius Buchanan, who is entitled to respect and gratitude for having, by his writings and labours, excited the British nation to send the blessings of education and religion to their Indian empire, (ob. 9th February 1815.)

Family of Montrose.—At the death of the last Buchanan of that ilk, in 1682, the estate was sold by his creditors, and purchased by the family of Montrose. They, too, claim high antiquity. Without asserting the existence of the Caledonian, who, in the fifth century, is said to have broken down Agricola's Wall, and to have given it his own name of Graham's Dike, it may be stated, that the present Duke of Montrose is the twentieth lineal descendant from Sir Patrick de Graham, who fell, regretted by friend and foe, in the battle of Dunbar, in 1296.* This family, unlike their predecessor, is famed for their military achievements; and numbers among their sons, Sir John de Graham, the companion of Wallace; the Marquis of Montrose, who flourished in the civil wars; the Viscount Dundee, who fell bravely, but vainly, attempting to support the tottering throne of James II.; and the present Lord Lynedoch, who distinguished himself by his chivalrous exertions in the wars of the French Revolution. The late Duke (ob. 30th December 1836) must be mentioned as an able, persevering patron of agriculture. During a long life, he was unwearied in embellishing his residence at Buchanan, in improving and extending his plantations, and in introducing superior breeds of farm stock.

The Clan Gregor.—The history of the Macgregors is now

* Hailes's Annals of Scotland, anno 1296.

familiar to all, from the ample account of them given by Sir Walter Scott in his introduction to *Rob Roy*. It may be remarked, that their predatory and even sanguinary practises are characteristic rather of a state of society than of a peculiar family, and will occur wherever, under a feeble government, a rude tribe is settled in the vicinity of an industrious civilized population. Black mail was levied on the English border, as well as on the skirts of the Grampians; and the exaction of that anomalous tribute by the Armstrongs of the south, was the same in kind, though inferior in degree and duration, with that of the Macgregors in the north. This sept occupied the upper part of Buchanan. Their noted chieftain, Robert Macgregor, better known as Rob Roy, (Red Rob,) was proprietor of Inversnaid in Glenarklet. A cave, bearing his name, is still shown in that neighbourhood; but it has no other claim to notoriety, being merely the interstices between huge loose rocks, and well adapted for temporary concealment to an outlaw. In the beginning of last century, Rob Roy was a troublesome neighbour to the family of Montrose. Laws were passed against the whole clan, and, to overawe them, a fort was erected at Inversnaid, and garrisoned by a company of soldiers. All these measures were of little avail. The Macgregors removed a few miles farther into the Highlands, and continued the exaction of black-mail till the suppression of the Rebellion of 1745, when an effectual remedy was applied, by opening up roads to inaccessible districts, by abolishing the heritable jurisdiction of the larger proprietors, and substituting, for the feeble baronial courts, an efficient national administration of justice. Relinquishing their lawless habits, the Macgregors soon learnt to emulate their countrymen in arts and arms. They are still, after being doomed to repeated proscriptions, and being engaged in successive rebellions, a numerous race, and are found everywhere, not only under their proper name, but also under the slight alterations of Gregor, Gregory, Gregorson, and Grierson. Their chief, in former times, was often elective. In 1798, Sir John Macgregor Murray, Bart. was raised to that dignity, by the choice of 826 clansmen, able to bear arms.

III.—POPULATION.

From the middle of last century, the population has constantly declined. It appears from the parish register, that, on an average of ten years from 1715, the number of baptisms was 49, which is four times more than the present amount.

Dr Webster's return, 1755, gave	1699
Statistical Account	1793, 1611
Census	1801, 748
Do. 1831, (should have been)	600

The number stated in last census is 787, which is greatly over-rated. It was taken early in summer, when, besides the resident population, there were many women and children from the adjacent villages, and even from Greenock, employed in the annual cutting of oak copse : these were all included in the return to Government. The real amount is stated in the table. The decrease of the population is ascribed to the enlargement of farms, and to the introduction of sheep-husbandry.

There is no village in the parish. The whole population may be called agricultural ; for though there are about ten families of tradesmen, none of them depends exclusively on his trade. There is a register kept of baptisms, marriages, and deaths ; but the first is incorrect, as many parents omit to register their children, and the omission is calculated at one-sixth of the whole number.

The yearly average for last seven years of births registered,	10
do. omitted,	2
of deaths,	7
of marriages,	3

In explanation of the marriages, or rather proclamation of banns, it must be stated, that the total number for the last seven years, where both parties, and where the male parties were parishioners, was 21,—thus giving the average of three, as entered in the table : but during the same period, there were also nine other proclamations, where the female parties only were parishioners, which are excluded, as belonging to other parishes where the male parties reside.

The people are sober, industrious, and religious. As the parish is on the Highland border, a part of the inhabitants still retain the Gaelic language. There are few, however, that do not understand English.

IV.—INDUSTRY.

Agriculture.—As there is no survey of the whole parish, the following table, so far as the woods and wastes are concerned, is conjectural.

Extent of arable land,	1500 acres.
lawn at Buchanan House,	750
improveable,	550
	— 2,800
natural woods,	3000
planted do.	1250
	— 4,250
	7,050

	Brought over,	7,050
Extent of waste or irreclaimable pasture,		69,750
		76,800

Woods.—The planted woods are almost entirely the work of the late Duke of Montrose, and consist chiefly of oak and larch. The management of the natural woods was greatly improved by his Grace. They are divided into twenty-four hags, or cuttings, one of which is sold by auction every year. The whole are cut down in the space of twenty-four years. That period has been found most suitable for felling copse-wood, as the bark has then arrived at its most perfect state for tanning, and as the wood adds little to its growth, for some years afterwards. The old stools are cut over and neatly dressed, close to the surface of the ground, that the young shoots may send out roots to draw nourishment directly from the earth. Blanks are filled with young plants where the ground is wet, all the surface drains are scoured, and new ones added, if necessary. The young wood, for six years, is carefully fenced from cattle: afterwards, it is twice thinned and pruned. At every cutting, some of the fairest trees, especially if grown from seedlings, are preserved as standards,—greatly to the ornament of the country, and to the advantage of the proprietor. The sales of natural wood, for the last seven years, have averaged L. 950, while those of planted woods have averaged L. 1300,—amounting together to L. 2250 yearly, exclusive of timber used for houses and farms on the estate. A saw-mill, and one of Ryan's patent tanks are in full operation for the use of the estate, and all timber used in buildings is steeped in the solution.

Manufactures.—A manufactory of pyrolignous acid has been established for several years at Balmaha, which annually consumes 700 tons of small wood, not measurable. The wood costs 7s. per ton, laid down at the works. All kinds of hard-wood are used; but oak is preferred. The products are acid and dye-stuffs, which are used in the print-works around Glasgow.

Farms.—There are ten farms, varying in rent from L. 1500 to L. 40. There are a few possessions of smaller size, and the workmen employed under the proprietor have each a house, garden, and pasture for a cow, with liberty to gather winter fodder from the grass of plantations. The lower part of the parish is arable, consisting of alluvial soil on the bank of Endrick, and of inferior soil, of various kinds, clay, gravel, and moss, rising towards the mountain range. The rent may be stated at L. 1, 5s. per acre.

In the upper part, especially along the side of Lochlomond, there is some dry fertile ground, bearing good crops of oats and barley; but the arable proportion is so small to the mountain pasture, that it is little regarded when a tenant estimates the value of his farm. He ascertains the number of sheep which it keeps, and calculates the rent at from L. 8 to L. 8, 10s. per score. The sheep are black-faced, of small size. Some attempts are making to improve them. Cheviots have been tried, but found not to answer, on account of the elevated exposed situation. The whole parish, except some islets, and one farm of L. 40, belongs to the Duke of Montrose. The rent is L. 5000, 17s. 6d: if the sales of wood, amounting to L. 2250, be added, the annual return to the proprietors is L. 7250, 17s. 6d.

Produce.—The following table contains the average gross produce of the farmers and others:

400 acres of oats, at 5 bolls, give 2000 bolls at 16s.	L. 1600	
90 do. of barley, at 6 bolls, 540 do. at L. 1, 1s.	567	
110 do. of potatoes and turnips, at L. 8,	880	
		L. 3,047 0 0
16,500 sheep, at 5s. 6d. each,	L. 4537 10 0	
240 milk cows, at L. 4 each,	960 0 0	
840 black cattle, at L. 1, 10s. each,	1260 0 0	
250 cattle grazed in Buchanan ground, at L. 3,	750 0 0	
10 young horses reared, and sold at L. 20,	200 0 0	
		7,707 10 0
Total produce of crops and cattle,		L. 10,754 10 0

In this table, no notice is taken of hay, though grass-seeds are sown with the white crop after turnips and potatoes, because, from the want of a market, the hay crop is generally pastured with cattle. No value is put on grass gathered from woods, or on natural hay, of which a great deal is made on many farms; both being included in the estimated produce of live-stock.

V.—PAROCHIAL ECONOMY.

There are no towns or villages, no post-offices, and no turnpike-roads in the parish.

Ecclesiastical State.—The church is situated in the lowlands, and is a plain edifice, very neatly finished, sufficient to accommodate 300 sitters. The number of communicants at last sacrament was 255, of whom 79 are heads of families. There are 120 families, of which 10 families are Dissenters. About one-third of the population is upwards of ten miles distant from the church, scattered along the side of the lake, and in Glendow and Glenarklet. For them Divine service is occasionally, during summer, performed

at Inversnaid. It is most desirable that a missionary were established in that district.

The manse was built in 1797, at a little distance from the church. Previously the minister lived, at the distance of three miles, in the original manse which was situated on the bank of the lake opposite to Inchcaileoch. The glebe contains 35 acres, but mostly bad ground, not worth more than 10s. per acre. The stipend consists of L. 126 of money, and 24 bolls of oatmeal, with a small allowance from Government, to make up the annual value of L. 158, 6s. 8d.

Poor and Parochial Funds.—The number of paupers is 24. The ordinary funds for their maintenance are the collections at church, varying from L. 20 to L. 23 per annum, and the interest of L. 400 of poor's stock. The family of Montrose are also very liberal to the poorer parishioners, giving clothes, meal, money, and sometimes grass for a cow.

Education.—The parish school is attended by 50 scholars in winter, and by 40 in summer. During the latter season, the peeling of oak bark interferes with the attendance at school. The salary is L. 31, with house and garden. There is a charity school at Salochy, in the upper part of the parish, attended by 40 scholars in winter, but scarcely by the half in summer. The teacher has, besides a house and cow's grass allowed by the proprietor, a salary of L. 15 paid by the Society in Edinburgh. A very few parents pay school-fees for their children. A small school is opened at Inversnaid. The teacher receives L. 8 from a lady in the neighbourhood, and is attended by 10 or 12 scholars. The best teacher there could not collect 20. To do justice to the scattered population, the school should be not fixed, but ambulatory.

MISCELLANEOUS OBSERVATIONS.

The population, though now only one-third of what it was a hundred years ago, is still likely to decline. In the Highland district, the people are straitened, and their numbers superabundant. They have work enough in summer, during the time of wood-cutting; but they are next to idle, during the rest of the year. To give them constant employment, it may be recommended, 1. to extend and improve the arable land of the pastoral district, and, by introducing turnip crops, to ameliorate the stock of both sheep and cattle; 2. to plant with larch, and with oak where practicable, bleak and barren tracts, not merely for the purpose of shelter, but as a profitable investment of capital, for it appears that

planted woods are far more profitable than natural; and, 3. to open up roads throughout the whole parish, by continuing the present road from Rowardennan along the east bank of the lake, and joining it in Glenfalloch with Arrochar turnpike, and by repairing the old road to Inversnaid garrison, to maintain a communication through Genarklet to the western part of Perthshire.

Drawn up February 1838.

Revised March 1841.

PARISH OF DRYMEN.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. ALEXANDER LOCHORE, A. M., MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, Boundaries.—The name Drymen, or, as formerly written, *Drumen*, is obviously derived from the Celtic word *Druim*, a ridge or knoll. The name is peculiarly descriptive of a considerable part of the parish,—the face of the country being much diversified by such knolls. This parish is bounded on the north, by Aberfoil and Port; on the east, by Kippen, Balfron, and Killearn; on the south, by Killearn, Kilmaronock, and Dumbarton; on the west, by Buchanan and Kilmaronock. Its extreme length is 15 miles, and its breadth 10. It contains about 50 square miles, and 32,200 imperial acres.

Topographical Appearances.—The outlines of the parish are very irregular, its figure approaching to that of an isosceles triangle, the base of which runs east and west, while the apex points towards the south. A mountainous, moorland track pervades it from east to north-west, and divides the parish into two parts,—the northern part is contained within the general basin of the Forth; the southern is included within that of the Clyde. The bog of Ballat, situated between these two portions, is the lowest summit level between the east and west coasts of Scotland, with the exception of the Dullater Bog, on the Forth and Clyde Canal. According to Smeaton's report, the former is 222 feet, the latter 156 above the level of the sea. Towards the western verge the moor rises into a lofty ridge, which separates this parish from

that of Buchanan. The most conspicuous points of this ridge are, Benvraick (the spotted hill,) and Guallan (the shoulder,)—the former of which may be 1600 feet above the sea level,—the latter 1300 or 1400. But, from the circumstance of their standing on a broad and elevated base, the appearance they present is not striking.*

A second muirish track, of considerable extent, and forming part of the Stockiemuir, occupies a great proportion of the south angle of the parish. The largest portion of arable land is situated between these two elevated muirs, within the picturesque and well-sheltered vale of the Endrick. The rest lies to the east of the Bog of Ballat, before-mentioned, and has a northern exposure towards the Forth. There is also some cultivated land along the banks of the Duchray and Keltie waters: but the breadth of this is inconsiderable.

The scenery of some parts of Strath Endrick is very beautiful; and it is rendered not the less interesting from its being in contrast with the wide and desolate muirland, from which you descend on either side. From an eminence not far from the manse, there is a prospect that is much admired. In the fore-ground, you look down upon the rich and extensive lawn of Buchanan, studded with innumerable trees; beyond which, is the wide expanse of Lochlomond, with the mountains of Ben-Leven† and Argyleshire in the back ground.

In the north-east of the parish, there is the commencement of the low, flat, moss lands which extend all the way to Stirling—sixteen miles. This is called the *Flanders Moss*. It is generally supposed to have had its origin from the overthrow of a vast forest, (part of the *horrida sylva Caledoniæ*;) which was cut down by the Roman soldiers in the time of Severus, to prevent the molestations of the natives, who had their fastnesses within it. Trees of an immense size are frequently dug out, having the marks of the axe upon them; and they are found lying in every direction, indicating that they were not overturned by a tempest, but by the hand of man.

* The haughs on the banks of the Endrick, in the western extremity of the parish, are about 40 feet above the level of the sea, twelve miles distant. The land on the Forth, though still further from the coast, is rather lower. The greater part of the arable land in the parish may be at an elevation of from 100 to 250 feet. The highest cultivated land is about 450.

† Ben-Leven is the peninsula which stretches from Dumbarton to Arrochar,—bounded on the one side by the Leven and Lochlomond, on the other by the Frith of Clyde, the Gareloch, and Loch-Long,—called the Isle of Ben-Leven.

Climate and Diseases.—The climate is moist and variable, as might be expected, in consequence of much of the country being elevated, marshy, and uncultivated. The prevailing wind is south-west. In spring we have cold easterly. The writer of this sketch kept a register of the quantity of rain that fell in the years 1834, 1835, 1836, 1837. The instrument employed was constructed by Mr Thom of Rothsay, and is similar to many which are now in use in the west country. The following are the monthly registrations, by which it will be seen that this parish has fully its own share of rain :—

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total.
1834,	10.40	3.20	3.60	.25	2.25	3.55	2.05	3.65	4.25	5.25	6.25	1.0	45.70
1835,	4.20	5.60	5.30	1.75	5.90	1.55	3.90	4.	7.40	3.20	6.60	3.90	52.70
1836,	6.80	3.20	4.	3.20	.30	4.10	6.40	4.70	6.70	3.90	5.90	3.40	52.60
1837,	5.10	5.60	1.	1.20	2.55	2.50	3.30	3.25	2.55	6.90	6.25	2.30	42.50

The diseases most prevalent in the parish are, rheumatism, continued fever, and inflammatory complaints. Typhus fever has increased greatly, of late years. Cholera did not visit us in its destructive course in 1834; but scarcely a family escaped the influenza of 1837, though there were comparatively few deaths.

Hydrography.—There are no lakes in the parish. The principal rivers are the Duchray, the Forth, and the Endrick. The Duchray, which is the southern and most considerable branch of the Forth, rises near the summit of Benlomond, and forms the northern boundary of the parish for some miles. It then leaves it to the south, and after joining the branch from Loch Ard, and acquiring the name of Forth, it approaches and again skirts the parish as far as its eastern extremity. The Forth, in this part of its course, is an uninteresting stream, its dark waters winding with a sluggish current between deep banks of moss, without any object that contributes to picturesque beauty. The Endrick intersects the parish for nearly two miles, and bounds it for about two more. It has its source among the Gargunnock Hills, to the north-east of Fintry, and, after a course of eighteen miles in nearly a direct line, empties itself into Lochlomond, being the largest river which that lake receives. It is a clear rapid stream, and (as its Celtic name* is said to imply) very subject to sudden floods, which often do considerable damage. In September 1836, it rose fearfully in the course of one night, and swept twenty score of lambs from the lawn of Buchanan into Lochlomond. On this river, at Gartness,

* *Awon-clric*, "river that rises." The old spelling is *Anericke*.

about two miles east of the village of Drymen, there are considerable falls. For a quarter of a mile, the channel is scooped out of the solid rock, and the vexed water forces its way over a series of precipices.

There are many fine springs of water to be found in this parish. St Vildrin's* well, on the farm of Finnich-Drummond, may be mentioned as remarkable for the large quantity of water which it discharges. In Roman Catholic times, and even within a hundred years, many a pilgrim drank of or bathed in its streams. An image of the patron saint, carved in stone, still presides over it. The world has either grown wiser, or these waters have lost their virtues, since not a knee bows now before the stony saint.

Botany.—In the higher parts of the parish, there are not found any of the rare Scottish plants. The *Erica vulgaris* and *cinerea* prevail; and where the heath does not grow, the *Aira flexuosa*, *Festuca ovina* and *vivipara* are the principal grasses. In many parts of the muirland, are found the *Empetrum nigrum*, and the *Vaccinium Vitis Idæa* and *Oxycoccus*. In the low marshy parts, the *Myrica gale* abounds; also *Typhelia palustris*, *Carex*, *Juncus*, and *Parnassia palustris*. It is worthy of remark, that, where these last-mentioned plants prevail, the soil is most congenial to the growth of oak coppice, producing bark of the best quality. Upon such ground, however, hard-wood will not grow to a large size; nor does the *Pinus* there outlive forty or fifty years. *Pinus larix*, *e. g.* begins to fail or rot in the heart.

Wood.—There is no lack of wood in the parish, more especially in the vale of Endrick. But, with the exception of the plantations belonging to His Grace the Duke of Montrose, there is no great quantity in any one place. At the Park of Drumquhassle, Dalnair, and near the manse, there are some magnificent oaks and beeches; and at the churchyard-gate, there is a noble ash, once the *bell-tree*, which has weathered at least 200 years.†

At the Castle of Duchray, and clustering round its walls, is some remarkably fine ivy, next, in age and strength, to that at Kenilworth. In the old orchard at Duchray, there are some aged

* The writer cannot find this saint in the Calendar. The above is the name current in the country.

† This tree is mentioned in the Agricultural Report of Stirlingshire, published in 1812, and it may be interesting to compare its measurement at that date and the present. Its girth is there stated at 15 feet at one foot from the ground, and 13 feet 8 inches at the middle of the trunk. It now measures 16 feet 7 inches in circumference at one foot from the ground, and 16 feet 1 inch at the middle of the stem, about five feet from the ground.

filbert trees, which produce a nut of a larger size and higher flavour than the common nut of the wood. They were brought originally from the Monastery of Inchmahome, in the Isle of Menteith, to which they had been conveyed from foreign parts.

II.—CIVIL HISTORY.

The only accounts of the history and statistics of the parish which the author of this sketch knows of are, "Description of Drymmen paroch, by Alexander Graham of Duchray, 1724," to be found in M'Farlan of M'Farlan's Geographical Collections, in the Advocates' Library, Vol. ii. p. 439, * and the old Statistical Account.

Family of Drummond.—The parish gives name to the Drummond or Perth family. According to tradition, the founder of that ancient and noble house was a Hungarian, named Maurice, who came over from Hungary in the train of Margaret, Queen of Malcolm Canmore, and obtained, in reward of his services, a grant of certain lands, and, among others, of Drymen in Stirlingshire. It is not certainly known in what part of the parish the Drummonds had their residence. Mr Nimmo, in his History of Stirlingshire, says, that it was probably somewhere near the Endrick. The northern part of the parish, however, still goes by the name of the barony of Drummond; and we are inclined to think, from this circumstance, that it was there they had their original seat, though neither history nor tradition now indicates the spot.

It is uncertain how or at what time, the Drummonds ceased to be connected with Stirlingshire. In the year 1360, in consequence of a feud which had long subsisted between them and the Earls of Menteith, a compact was entered into at a meeting on the banks of the Forth, in presence of the justiciaries of Scotland, by which Sir John Drummond resigned certain lands in the Lennox, and obtained in lieu of them others of greater value in Perthshire. Shortly after this, and probably in consequence of it, their residence seems to have been transferred to Stobhall in Perthshire, which, along with other extensive estates in that county, had some years before come into possession of the family by marriage. Previously to this change of residence, however, Anabella, daughter

* This description is rather curious as to its computation of distances, and gives us a pretty good idea of "the lang Scotch miles" of our forefathers. "The church of Drymmen," *e. g.* is said to be "fifteen miles west of Stirling;" whereas it is now twenty-two, and these miles long enough. "A large half mile from the church, on the south side of the Enrick, is the house of Edward Buchanan of Spittal." We would now reckon it distant a tolerably large whole mile.

of Sir John Drummond, married Robert, Earl of Carrick, High Steward of Scotland, who afterwards succeeded to the throne by the title of Robert III. The fruit of this marriage was two sons, one of whom afterwards became James I. Thus the parish may lay claim to the honour of having produced a lady from whom descended the Royal House of Stuart; and who was not more distinguished for rank and station, than for the many virtues which adorned her character.

Eminent Men.—The Napiers of Merchiston had, at one time, considerable possessions of land in this parish. On the 22d February 1494–95, Archibald Napier got a charter under the Great Seal, “of the lands and mill of Gartness, the lands of Dolnare, Blareour, Gartharne, the two Bollatis, Douchlass, Edinballie,” &c. with the woods and forests thereof, and the fishings of the waters of Anerich and Altquhore, in the Earldom of Levenax and shire of Stirling. The whole, with some other lands in adjoining parishes, was incorporated into a free barony, and called the barony of Edinbellie Napier.*

The great grandson of this Archibald Napier was John Napier, the famous Inventor of Logarithms. According to some authorities, he was born at Gartness, in this parish, in the year 1550. At all events, he is known to have resided there, at various periods of his life. Upon his return from his travels on the continent, he betook himself to those studies and pursuits which have immortalized his name. The seclusion of Gartness, an isolated corner, far from the haunts of men, was congenial to a mind devoted to the mysteries of theological and mathematical science. In that sequestered spot, living like a hermit, and engaged in studies, which few, if any, in these parts could comprehend, it is not to be wondered at, that he was looked upon by the common people as a wizard, and was consulted as one who had insight into futurity, and intercourse with invisible beings. The retirement of Gartness was not without its annoyances. It is told of him that the noise of the waterfall and of the mill in the immediate neighbourhood of his residence, tried his temper not a little by disturbing him in his studies. The former he could not prevent; but often, when engaged in abstruse calculations, he was in the habit of ordering the miller to stop the constant *clack-clack* of his wheel.

* A miserable cottage on the farm of Finnich-Drummond, in this parish, is the last vestige, by name, of this once splendid barony. In the farm of Craigievairn, there is a large field which still goes by the name of “Lady Napier’s Field.”

There are still visible some fragments of the ruins of the castle in which he lived, overhanging the falls of Gartness. A stone, with the date 1574, taken from these ruins, is seen built into the gable of the mill. The present proprietor, Mr Govane of Park, (into whose family the estate of Gartness came, about a century and a half ago,) has in his possession some globular stones, with the circles of the sphere and constellations engraved on them—and concave stones, with engravings of a similar character, which are understood to have been made by Napier. There is also a stone of this kind to be seen, forming one of the *rybats* of a window of the mill. It is very probably to some such handiworks of Napier, that Butler in his *Hudibras* (Part ii. Canto 3,) refers, when he speaks of

“ A moon-dial, with Napier's bones,”
And several constellation stones,
Engraved in planetary hour,
That over mortals had strange power.”

As connected by birth, and as formerly minister of this parish, may be recorded under this head, the name of the Rev. Principal Macfarlan, who so ably presides over the University of Glasgow; as also that of his father, who was minister of this parish from 1743 to 1791. The latter is still remembered by the old people as a man of great shrewdness and vigour of mind—and of bold intrepid character.

Land-owners.—These are, His Grace the Duke of Montrose; William C. C. Graham, Esq. of Gartmore; Robert Govane, Esq. of Park of Drumquhassle; Mrs M. Buchanan, of Drumakiln; James Macfarlane, Esq. of Ballwill; John Buchanan, Esq. of Carbeth; General Graham Stirling of Duchray; John Todd, Esq. of Finnich Malice; Miss M'Goune of Mains; William Lennie, Esq. of Ballochneck; William A. MacLachlan, Esq. of Auchentroig; Rev. Dr Graham, of Balsunning; and James M'Nair, Esq. of Balvie.

The only family of independent fortune residing in the parish is, that of Robert Govane, Esq. of Park. The number of proprietors of land of the yearly value of L. 50 and upwards is, 29. There are nine resident, who farm their own properties.

Parochial Registers.—There are five volumes of session-records,

* “ Napier's Bones.” This has reference to an invention of Napier, whereby he contrived, by means of some small rods with the digits inscribed on them, to perform certain operations of multiplication and division. A tract was published in London, 1684, containing “ An Account of the Numbering Rods of the Right Honourable John, Lord Neeper; enlarged. Printed for Joseph Moxon, at the sign of the Atlas, in Ludgate Street; where also these numbering rods (commonly called Neeper's Bones) are made and sold.”

the two oldest of which are now in a very decayed and imperfect condition. The earliest date is 1676. The record from 1677 to 1721 is wanting. After that period, with the exception of a gap from 1740 to 1743, they seem fully and accurately kept. The earliest date of the minutes of session is 1723. The oldest date in the church-yard is 1618.

Antiquities.—On the farm of Garfarran, and within the barony of Drummond, are the remains of a Roman fort called the Peel of Garfarran, (castle of vexation.) It is at the western extremity of the Flanders moss,—and was erected by the Romans, probably to protect them from the assaults of the natives, who had betaken themselves to the forest. This fort is nearly square.

The outer and inner rampart are still quite discernible—as also the fosse surrounding it, with the opening through which it might be filled from the rivulet which runs near.

The names of two places in the parish indicate the sites of religious houses, viz. Chapel-Laroch, (site of a church or chapel) near Gartmore;—the ruins of this chapel, which existed in 1724, when the laird of Duchray wrote his account of the parish, have now completely disappeared. And Knockiuhaglish, (hill or knoll of the church,) on the lands of Finnich Drummond, not far from the sainted well already spoken of.

At a short distance from this, on the farm of E. Cameron, a large cairn was broken up, about twenty years ago,—in which a number of stone coffins were discovered, and human bones found therein; but there is no tradition as to the origin of the cairn, or the occupants of these *kist-væns*.

III.—POPULATION.

By the returns made to Dr Webster in 1755, the population was	2789
By census of 1791,	1607
Do. 1811,	1500
Do. 1821,	1652
Do. 1831,	1690

The great decrease which took place from 1755 to 1791, was mainly owing to the union of small farms—the breaking up of the system of cotteries—and the inducements held out to the rural population to settle in manufacturing towns. The vestiges of such depopulations are very visible. The desert walls and ruins of many a cottage, with the solitary trees overhanging them in the different districts of this parish, show the change, somewhat melancholy, that has come over it. And the many unclaimed *lairds* in the church-yard, tell of many families having passed away, who once lived here in simplicity and peace. It is for the moralist and the philanthro-

pist to say, if such changes in the state of society have been for the better.

The present population may be classified as follows, viz.

Number of families in the parish,	-	-	-	312
employed in agriculture,	-	-	-	150
in trade, manufactures, or handicraft,	-	-	-	64
Number of males,	-	-	-	863
of females,	-	-	-	827
of males above 20,	-	-	-	458
of persons residing in the village,	-	-	-	404
in the other parts of the parish,	-	-	-	1286
above, 70,	-	-	-	52

There are only two persons above 90. In one family, there are four persons, whose united ages make 317, viz.—83, 84, 80, 70.

It is difficult to give a correct estimate of the number of births and marriages,—the registration of births being much neglected, especially by Dissenters; and the mere proclamation of banns being no rule as to the number of marriages, as the solemnization of the marriage often does not take place in the parish of the proclamation. No regular record of the deaths has been kept. Some legislative enactment is much wanted to regulate and enforce these registrations.

There is one deaf and dumb man. There are two fatuous; none insane.

Character of the People.—It may be said of the people generally, that they are intelligent, industrious, and frugal, exemplary in their habits, and, with few exceptions, attentive to the public ordinances of religion. With respect to the enjoyment of the comforts of life, they are not behind their neighbours. They are generally well-lodged and well-fed; and at marriages, burials, and in church on Sabbath, show, by their style of decent dressing, that they are in comfortable circumstances. It cannot be concealed that the prevailing vice is drunkenness; encouraged greatly, without doubt, by the too frequent sign-boards in the country, announcing “porter, ale, and British spirits.”* About twenty-five years ago, smuggling was carried on to a great extent in this parish. A seizure is now a very uncommon occurrence. There is still occasionally some *blazing* in the burns; as much, it is believed, for a winter-night’s amusement, as for the spoil that is obtained. There is in this country great temptation to poaching; the game being very plentiful. The proprietors generally keep a strict look-out after delinquents. But, upon

* Vide Macniell’s Scotland’s Skaith.

the whole, whether from principle or restraint, few concern themselves in such illicit practices.

IV.—INDUSTRY.

Agriculture and Rural Economy.—It has been already stated, that the parish consists of about 32,200 acres. The number of acres which are cultivated and occasionally in tillage, is about 7000. It is not easy to say how much is arable. There are large tracts in the muirland, and along the lower parts of the mountains, which are quite susceptible of cultivation. In many districts where sheep and black-cattle are now wandering without inclosure, there are traces of cultivation by a former generation. But, from the modern notions of farming, and the distance from lime and from markets, it is considered better to let such land lie in a state of nature. There may be about 21,700 acres of hill and muirland. The land under wood may be stated at about 180 acres of natural coppice, and 376 planted.

Soil.—In a parish of such extent, it is to be expected that there will be much diversity of soil; hence, we find every variety, from the most barren to the most productive. Along the Forth, there are nearly 3000 acres of deep moss, under which there is a rich clayey soil, capable of producing the most abundant crops. The prevailing soil of the lands on the Endrick, is rich brown loam. As you ascend from these low grounds, the soil is light sandy dryfield. But the most common soil of the parish is poor and tilly, with a retentive cold subsoil.

Rent, Rate of Wages, &c.—The average rent, per acre, of the inferior arable land, may be stated at, from 10s. to 15s.; and that of better quality, chiefly in the lower parts of Strath Endrick, at L.2, 10s. The rent of a cow's grazing on the best land is L.3, 10s.; of hill-fed sheep, from 5s. to 6s. The rate of wages for ploughmen and men farm-servants is from L.12 to L.16 a-year, exclusive of board and lodging; for women, from L.5 to L.9. Labourers receive from 1s. 8d. to 2s. a-day during three-fourths of the year, and 1s. 6d. during the winter months. Masons and wrights, from 2s. 6d. to 3s. 6d.; and tailors, when employed in the houses, 1s. 6d. with victuals.

Stock, &c.—The Ayrshire breed of cattle are generally and successfully reared in the south and west ends of the parish. The north and east districts are much behind in this respect, partly from carelessness, and partly from attachment to the old or mongrel breed. The sheep with which the muirlands are pastured, are of the

black-faced kind. For the improvement of the stock, Linton and Lammermoor rams are occasionally introduced. On the better farms, a few of the finer species, such as the Leicester, are kept, but chiefly for supplying the "gude-wife" with some better wool for her domestic purposes.

Within the last twenty years, there has been a very great improvement on the stock of this part of the country. This has been mainly owing to the exertions of the Strath-Endrick Club. By instituting an annual competition, and offering high premiums for the introduction of superior animals,—the former breed, which was a mixture of all kinds of inferior stock, has in a great measure disappeared. And the district can now challenge a comparison with any part of the country. This club was instituted in 1816, and holds its annual meeting in Drymen in the month of August. Its funds are raised by yearly subscription of the members, consisting of the principal proprietors, clergy, and respectable farmers in the district. His Grace the Duke of Montrose is patron of the Club. The late Duke, whose memory will be long cherished in this quarter, as an enlightened improver, and a kind and generous landlord, contributed greatly, by his influence and exertions, to its success.

Husbandry.—The improvement in agriculture, in this parish, has been keeping pace with the improvement in the stock. There is, with many of the farmers, a laudable desire of adopting the new and approved processes in farming. We have still, however, in the remote quarters of the parish, an obstinate adherence, on the part of many, to the old system of "their fathers before them!" They are contented to "dodge on" in the antique fashion, without troubling themselves with the modern novelties.

In the more fertile districts, the five-shift rotation of crops is adopted. On many farms, a great deal is now going on in furrow or parallel draining; one of the greatest improvements for a country like this, in farming. The expense, however, is so great, that, without the landlord's bearing a large proportion of the outlay, the tenant cannot carry it on to any great extent. Not a few of our landlords, aware of this, are encouraging their tenants to drain to any extent, paying the half of the expense.

On the estate of Finnich Malice, the late George Buchanan, Esq. drained in this way to the extent of 60 acres.* The present

* The present proprietor, John Todd, Esq. is carrying on similar farming operations to a very great extent.—1841.

enterprising tenant of Finnich Drummond, John Buchanan, Esq. of Ballat, brother of the above-mentioned gentleman, is carrying on much of this work, assisted by his landlord, the Duke of Montrose. James M'Nair, Esq., of Balvie, has most successfully brought into culture about 90 acres of black heathy ground. And now his farm of Auchineck, which, nine years ago, was of dismal and forbidding aspect, looks as smiling, and is as productive as any in the parish.

Leases, Farm-houses, &c.—The duration of leases is generally nineteen years. On the Duke of Montrose's estate it is eighteen, and for grass farms, nine. It would be a great benefit both to landlord and tenant, if more attention were paid, in the case of renewing leases, to grant the renewal within three or four years of the expiry of them. This would prevent the farm being exhausted, and, likewise, much anxiety of mind to the occupant in the prospect of removal.

The farm-houses and steadings on the larger farms are, in general, good and commodious,—but, on the smaller, in many cases, both are unworthy of the style of farming and of living of the present day.

Much attention is now paid to fencing with thorn-hedges. The trim dressed hedges in the western districts are much admired. In many places, however, the hedges have been planted too low ; the consequence is, that the thorns getting hold of the cold damp subsoil, canker and die.

The rental of the parish is about L. 9000 ; the valued rent L. 5069, 10s.

There are three corn-mills in the parish, and a mill at Gartness for carding, spinning, dyeing, and weaving woollen goods, which are chiefly used in the country.

V.—PAROCHIAL ECONOMY.

Village—Markets—Means of Communication, &c.—Drymen, the only village in the parish, contains a population of 404. With the exception of the ordinary trades-people, the inhabitants are chiefly employed in country labour. There used to be a fair, almost every month held here : but of late years, in consequence of the improved means of communication, and the increased facilities of obtaining commodities from other quarters, they are reduced to four ; chiefly for the hiring of servants. The people of this parish mostly avail themselves of the Glasgow markets, eighteen miles distant. In the populous districts of the Leven, about seven miles to the west of Drymen, and of Duntocher, about twelve

miles to the south, the farmers find a convenient outlet for their produce.

There are ten miles of turnpike road in the parish, viz. the great road leading from Glasgow and Dumbarton, by Drymen, to Stirling. And thirty-five miles of parish roads. The latter are kept in repair (not the best) by converted statute labour money; the annual amount of which is L. 120.

There is a very handsome bridge over the Endrick, within a mile of the village, connecting this parish with that of Kilmaronock. This bridge was built in 1765. There is another called the Finnich bridge, (recently widened and improved,) stretching over a deep romantic ravine, through which the burn is seen struggling far below. There is a stage-coach three times a week to Glasgow; starting at 7 A. M. and returning same day by 8 P. M. There is a weekly carrier, and a daily post.

Ecclesiastical State.—The parish church is situated near the village of Drymen—but set down most inconveniently for more than half of the inhabitants of the parish. It is within half a-mile of the west extremity of the parish; and there is a population to the north and east of it, of upwards of 700, from six to twelve miles from the church. This inconvenient state of things has been somewhat remedied, of late, to the inhabitants of the east parts of the parish, by the erection of a church in the village of Buchlyvie, within the parish of Kippen. To this church a population of 400 belonging to this parish, have been attached *quoad sacra*; and now many, who, from their distance from the house of God, could seldom be there, have a church so conveniently placed for them that they can enjoy the ordinances every Lord's day:—one of the good fruits of church extension.

The inhabitants of the north of the parish, (about 300), being separated from the church and its ordinances by a wide and desolate muir,—seldom, excepting on sacramental occasions, come across. The minister has been in the habit of officiating among them twice a-year. But they generally avail themselves of the benefit of public worship in the churches of Aberfoil and Gartmore; with which, however, they have no privileged connection.

The parish church is a plain substantial building, erected in 1771, and is at present in good repair. It affords accommodation for about 400, and is sufficiently large for all who *can* attend. The seats are parcelled out among the heritors, according to their valuations.

And their tenantry, servants, and poor, occupy their respective allotments.

The sacrament of the Lord's supper is dispensed twice a-year, in June and November. 444 communicants are at present on the roll, of whom 145 are male heads of families.

The manse was built in 1748, and has, from time to time, received repairs and additions. It is a substantial and commodious house; delightfully situated on a bank overlooking the Endrick, and is perhaps not surpassed, in the beauty of the situation, by any manse in Scotland. The extent of the glebe, including garden and policy attached to the manse, is about seven acres. Its yearly value in rent may be about L.20. There is no grass glebe; but the minister has an allowance of L.1, 13s. 4d. in lieu thereof. The stipend, by decree of the Teind Court in 1831, is 17 chalders, half meal, half barley. But the heritors having since surrendered their teinds, it is now 319 bolls, 2 pecks of meal, and L. 7, 3s. 9d. of vicarage.

By the statements laid before Her Majesty's Commissioners, when they visited Drymen in 1837, there are 340 Dissenters in the parish, belonging chiefly to the United Secession and Relief. The remaining 1850 belong to the Established Church. In the village of Drymen, there is a United Secession Chapel, built in 1819, at an expense of L.370. The minister's stipend is L.85, and a house valued at L.15 per annum, raised from the seat rents, by ordinary and extraordinary collections, and by occasional aid from the synod fund. Those of the parish who are connected with the Relief dissent attend the Relief chapels in Balfron and Kilmaronock.

Education.—The parish school is within half a mile of the village of Drymen; but, like the parish church, is inaccessible to more than half of the population. The teacher has L.31 of salary, and an excellent school and dwelling-house, together with the legal quantity of ground for a garden.

There is in general a laudable desire on the part of the parents to give their children a good, useful education. But classical learning appears to be fast on the decline in this quarter, there being only two Latin scholars in the parish school, and only one college student resident in the parish.

With the exception of about half a dozen, and these incomers into the parish, there are none above fifteen years of age who cannot read.

There are two schools in the northern and eastern districts of

the parish, in which the ordinary branches are taught; the former having, in addition to the school fees, L. 5, 11s. of salary, granted from the rents of the bishoprick of Dunkeld; the latter having the interest of L. 88, left by the late Miss M'Lachlan of Auchintroig. There is also, in the village of Drymen, an infant school, taught by a female; the building and ground granted by His Grace the Duke of Montrose; and, in addition to the school fees of 2d. a-week, a few pounds are raised by contribution by the friends of the institution.

There are two Sabbath schools; the one taught by the minister of the parish, the other by the Dissenting minister.

The number of scholars in the parish is as follows, viz.—

Parish school,	111
Do. evening,	36
Infant school,	30
Dalmory,	36
Auchintroig,	28
Taught privately,	12
	253

Being rather more than one-seventh of the population.

Library.—A Parish Library was instituted in 1829. It consists of nearly 400 volumes, well selected, and consisting chiefly of books of history, travels, and religion. It is in a flourishing condition, and has tended not a little to diffuse a taste for reading.

Savings' Bank.—A Savings' Bank was begun here in 1829, and has proved most beneficial to many of the contributors, both in the habits of economy they have been thus led to practise, and in the means it has put in their power of improving their condition in life. There are at present forty depositors; two-thirds of whom are servants. The following statement will show its progress for the last seven years:

Deposits in 1831,	L. 104	Due at the year's end, L. 256
1832,	91	311
1833,	49	246
1834,	74	305
1835,	45	336
1836,	129	416
1837,	67	413

Besides this, a considerable sum in small bills, belonging to some of the depositors, is lodged in the regular bank; so that there may be in all about L. 700.*

Poor and Parochial Funds.—There is no assessment for the poor in this parish. The funds available for their support, and

* The funds of this savings' bank have been transferred lately to the National Savings' Bank, Glasgow—the minister still acting as receiver.—1841.

at the disposal of the kirk-session, are such as arise from the church collections, mortcloth money, donations, and the interest of L. 185, which has been realized from mortifications, and savings from church collections. The collections, on an average of the last seven years, amount to L. 35, 9s. 3½d. There are at present on the roll 17, who receive, according to their circumstances, from 7s. 6d. to L. 1, 12s. 6d. per quarter, besides occasionally coals, cordials, and extra help, when in sickness or destitution.

There is still much of the good old Scottish feeling among the people, of reluctance to receive parochial aid. The fact, that, at the period when the last Statistical Account was written, there were 38 poor on the roll and now only 17, is a proof that the people are either in better circumstances, or that they are, if possible, more unwilling to receive such help. It is no uncommon occurrence for the parishioners to raise by subscription, a sum of money in aid of some individual or family who have been thrown into destitute circumstances, by affliction or bereavement, rather than that they should be subjected to the humiliation of becoming parish paupers. An instance has just occurred. A poor, industrious family had their eldest son (a promising young man, a student,) brought home to them in fever;—and he died. The father and mother were seized. The father died; their means were exhausted, and there were eight young children to provide for: and the poor, widowed, disconsolate mother, from her sick-bed, entreated of the minister who offered her relief, that whatever he bestowed should not be from the parish funds. The people's sympathy and prompt liberality have done for her what the parish funds could ill afford. Such a spirit, while it may be characterized as that of honest pride, it is to be hoped, has respect to the promise, "Leave thy fatherless children, I will preserve them alive—let thy widows trust in me." Such a spirit, there is no doubt, will lead to industry, and will raise up friends to help, and so will God fulfil his promise.

Police, Prison, &c.—There is not a justice of peace, nor magistrate of any kind resident within the bounds of this parish; neither is there a jail or lock-up house from the most westerly verge of the county onward to Stirling,—a distance of nearly fifty miles. The consequence is, that crime and misdemeanour frequently go unpunished, the arm of the law not being long enough nor strong enough to reach so far; and parties who have been injured, preferring to suffer damage rather than be put to the trouble and ex-

pense of seeking redress at a distance. This is the cause of much complaint.*

Inns, &c.—There are 12 inns or public-houses in the parish ; of these, there are 7 in the village, certainly by far too many for any good or salutary purpose. Their influence on the morals and circumstances of the people is exceedingly injurious. There is but one opinion among all well-thinking people in the community here, as to the necessity of something being done towards the reduction of the number of licenses.

Fuel, &c.—In consequence of the distance and expense of coal, its use is limited among the lower orders here. Their chief fuel is peat, which is to be had in abundance in the moors in the neighbourhood. The nearest good coal is to be had at Garscube, thirteen miles from Drymen. The price of a cart of 14 cwt., including carriage and tolls, is from 13s. to 14s.

Written December 1838—Revised March 1841.

PARISH OF DENNY.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. JOHN DEMPSTER, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name, it is conjectured, is a corruption of the Gaelic word *Dun*, signifying a *hill*. It is descriptive of the locality, upon the height of a gentle acclivity, which slopes on the north to the river Carron, and on the south to Sclanders burn. The church is 400 yards from the nearest bank of Carron, and the houses extend from the church down a neat street to the bridge over the Carron, here called Denny-bridge. The ancient village consisted of a broad street, having a row of houses on each side directly east from the church, on the road to Falkirk and Edinburgh. A new street, parallel to this broad Street, with one row of neat houses on the north side, has risen since this century commenced. This street is called, in honour of the principal heritor, Herbertshire Street. There are no houses on the southern

* Within the last year one of the recently appointed Rural Police has been stationed at Balfon. But one man, who has the supervision of five parishes, can do us very little good.—1841.

declivity of the little eminence on which the town stands, partly from the glebe being on the west side of that declivity, and partly from the nature of the ground on the east side, and high price of feuing.*

Extent.—The parish is generally computed at 6 English miles in length, and 4 in breadth, on an average. It is much about the same dimensions as laid down in a map of the county of Stirling, from a survey by Grassom, and published in 1817. About the same time, a survey and valuation of the rent of the parish was made by Mr William Kemp, land-surveyor, by direction of the Honourable Charles Elphinstone Fleming of Cumbernauld, superior of a great part of the parish,—a copy of which is before me, dated 9th July 1818, subscribed by Mr Kemp. The extent in Scots acres, according to him, exclusive of the common, which was divided in 1800, is 5314 acres, 4 falls, valued at the yearly rent of L. 7914. The extent of the common he makes 702 acres, 20 falls Scots measure, and the yearly value, L. 173, 8s. 4½d. Both together make the parochial territory 6016 acres, 24 falls Scots measure, and the rental, L. 8087, 8s. 4½d.

Boundaries.—The Darrach Hill, a principal feature of this parish, (*"Hill of Oaks,"*)† forms the western boundary, from which, sloping to the eastward, in few places with abruptness, the whole parish stretches along to the parish of Dūnipace, its boundary in that direction. The rivers Carron and Bonny are its lateral boundaries, Carron on the north, and Bonny on the south. On the west and north of Carron, the contiguous parishes are St Ninians and Dunipace; and on the south, Falkirk and Cumbernauld. The parish of Kilsyth is the boundary on the south-west.

Topographical Appearances.—The figure of the parish is irregular, but has some resemblance to a parallelogram. In this figure, but more to the north side, there is a wide irregular ridge of whinstone and freestone through its whole length, from which the grounds slope on each side—on the north towards Carron, and on the south towards Bonny, dividing the parish into two nearly equal parts, both as to extent and population, often called South and North Herbertshire, and referred to in

* The entry to Denny from the south is now improved by a new turnpike being made. An excellent house, fronting both the west and the north, has been erected on the east side of the road. The road is now wide, and of easy ascent, from the erection of a new bridge over Sclanders-burn. The height opposite the church-gate has been levelled, and the appearance of the town by this entry is even beautiful.—(1841.)

† Nimmo's History of Stirlingshire, p. 740.

various tenures by these appellations, as the lands happen to lie on the north or south side of the parochial ridge. The reason of these appellations is unknown. If true, as the editor of the second edition of Nimmo's History of Stirlingshire states, page 739, that Herbertshire was the name of a parish,* Denny might have been part of that parish, and have thus got its natural divisions characterized. The surface of the parish is diversified by heights and hollows, blended together by varied and beautiful undulations. The only hill within it, is Myothill, the property of John Graham, Esq. It is in the upper division of the parish, which is called Temple Denny. It is comparatively small, but beautiful, of a conical shape, and lies at the base of Darrach Hill, justifying, from its general, lateral, and summit smoothness, its name of Myot, which is conjectured by the editor already mentioned to signify *smooth* or *soft*. Myothill-House stands at the bottom of the hill, embosomed in trees, and forms the most prominent parochial object to the traveller westward from Falkirk. The turretted antique grandeur of Herbertshire, the house of the lady of the late William Forbes, Esq. of Callendar, and mother of the present William Forbes, Esq. of Callendar, late Member of Parliament for the county of Stirling, first, indeed, attracts notice, from its fine elevated position on the northern bank of Carron, in a lawn adorned with ancient trees; but, although the fourth part of the parish of Denny belongs to its proprietor, Herbertshire is in the parish of Dunipace. The undulations of the surface for a mile about Denny, and more especially to the eastward, are noticed as varied and attractive, and by strangers particularly admired for their beauty. The rush of the diluvial waters from Darrach Hill to the Forth, sweeping before them the softer mould, seems to have occasioned the tasteful knolls in this direction, which adorn the lower fields of the parish.

Hydrography.—Springs abound in the parish, but none of them are remarkable for peculiar properties. Castlerankine (conjectured to mean *Castle of the headland point*) burn is the largest rivulet that runs through the parish. It forms the boundary between Temple Denny, and North and South Herbertshire, marking off that portion of the parish—a third part, perhaps, of the whole—which, it is said, once belonged to the Knights Templars. It rises in the south-west, at a little distance from the base of Darrach Hill, and falls into Car-

* It is mentioned as a baron in a charter of Robert I. Nimmo's Hist. p. 575.

ron, near Denny Bridge. It takes part in contributing to the manufactured products of the parish. About a mile from Denny, there was once a lint-mill driven by its waters. Next, about five years ago, a small printfield was set down, instead of the lint-mill. The printfield having not succeeded, was relinquished; and Messrs John Gray & Son have now, within these twelve months, in consequence of extending their dyewood manufactory, become proprietors of it. Lower down the rivulet, there are chemical works, for making pyrolignous acid and its compounds, in which its waters are useful for keeping the metal conduits cool. But both these manufactories will be more particularly noticed afterwards.

Cascades.—In the division called Temple Denny, and within a mile of the new bridge over Carron, on the road to Fintry, about five miles west from Denny, there is a cascade called Auchinlillylin-spout. In the first year of the present century, the wild natural beauties of the spot were transformed into a sort of fairyland, by the genius of Robert Hill, Esq. W. S. Edinburgh, who had purchased the lands of Forrest Hill, of which it is a part. A rustic cottage of whinstone, with the angular points facing one in all directions, was built on the very margin of a deep fissure, through which the waters of Carron flow, to be tossed over the rock of Auchinlilly, within perhaps six yards of the heath-covered cottage. There were a kitchen, a cellar, and other apartments; and also a stable was dug chiefly out of the rock, below the level of the floor of the cottage. On that floor, were a handsome dining-room, drawing-room, and two small bed-rooms. A spacious window in the dining-room fronted, westward, the rushing waters as they fell over the rock into the fissure, in their course to the spout. The river was seen, for some way up its channel, diffused in comparative largeness of expansion, and studded with tiny rocks, which might be reached when the waters were low. At other times, the river, swollen by the rains around the Muckle Bin, from which it takes its rise, and by the various feeders of the Carron between the Bin and Auchinlilly, rushing forward in roaring majesty, presented a magnificent spectacle from the dining-room window. On one occasion, the stream, having suddenly risen much above its usual elevation, struck the dining-room window with its surges, and, increasing in strength, burst through the window, and, rushing into the kitchen and cellar, made a new cataract over the rock adjoining the spout, into the channel of the river.

No lives were lost. The damage was speedily repaired, and, to prevent in future such accidents, a deep excavation in the rock was made in front of the cottage, through to its east rocky banks, sufficient to receive any future overflowings. It was arched over, and thereby easy access, as formerly, to the entrance to the cottage was provided. The banks on each side of the river were planted; walks were made along their sloping sides, with resting-places at proper stations, for enjoying the picturesque beauties of the scene. A carriage way from the turnpike, from Denny to Fintry, was formed down to the cottage. A bridge of plank, close to the spout, was thrown over the fissure, which divides Denny parish from St Ninians, to give access to the garden on the other side. For a time, it was the resort of the curious, who came even from a distance to see and enjoy the scenery of the Cliffs of Carron, the name by which it was known. A mother's fears for her offspring, amidst so many perils, soon made the amiable and accomplished lady of the property, a stranger to its beauties. The last interesting inhabitant of this once enchanting and still beautifully wild place, was the widowed sister of the amiable Graham, the Sabbath poet. Since she left it, some dozen years ago, it has gradually decayed, and has at present only the ruins of its beauty remaining. It is now the property of Archibald Wishart, Esq. W. S. Deputy-Keeper of the Register of Sasines, Edinburgh.

Rocks.—The rocks are whinstone and freestone. The dip in a recently opened freestone quarry in the parochial ridge, already mentioned, is from the north, cropping-out on the south. Its colour is whitish. There are other freestone rocks, of yellowish and greyish colour, as well as whitish.

Soils.—On the lower banks of Carron and Bonny, the soil is loamy. In the upper parts, it is frequently marshy, and in the central parts, gravelly.

Mines.—The mines in the parish are of ironstone and coal. The ironstone lies in Castlerankine division of the parish; the coal is diffused over the upper part of the parochial surface, and more especially in the southern quarter, called Banknock. The coal on the northern side of the parochial ridge, though nearest Denny and the manufactories, is only occasionally worked, owing to the want of a level for drawing off the water; and it is doubted whether the quality of it be such as would indemnify the working it by steam.

Banknock coal is the common fuel of the parish and neighbourhood, and is sent by means of the adjoining canal, both to Greenock and Edinburgh. There are three strata of this mineral in the district of Banknock. No. 1. The upper seam of 60 acres, 3 feet 6 inches thick. No. 2. The thin seam, 160 acres, 22 inches thick; and, No. 3. the main seam, of about 100 acres and 5 feet thick. The deepest pit at present is 68 fathoms deep.

Wood.—There are no plantations in the parish; but there may be about 200 acres of coppice wood on the property of William Forbes, Esq.

II.—CIVIL HISTORY.

The parish of Denny was originally a part of the parish of Falkirk, from which it was separated, as is supposed, (for the records are lost), about the year 1618. The rector of Falkirk had a vicar at Denny, who, besides the small tithes, had a valuable glebe of 28 acres, which was by the last vicar, before the Reformation in 1560, in some way, secured to some of his family connections. The vicar's name was Oswald. The property was confirmed to the family by a formal approbation of James VI. Excerpts from that proceeding, written in Latin, are before me. The text is not complete. The property continued in the name of Oswald until the death (about twenty-five years ago) of James Oswald of Dryborough. Dryborough is adjacent to Denny, and is the name by which the ancient glebe lands are at present known. The Protestant minister had $4\frac{1}{2}$ acres Scots provided for him out of the glebe lands,—a provision which is still enjoyed by his successor, and which constitutes the whole glebe land which now belongs to the cure. There are deeds among the sasines of Stirlingshire from 1520 to 1620, kept in the Register-Office, Edinburgh, which the curious will be rewarded by consulting on the subject of church lands, as applicable to the parish of Falkirk, and to Denny, as part of that parish. The minister of the parish of Polmont, disjoined also from Falkirk about a century ago, draws from the heritors in Temple Denny, in this parish, the equivalent for his grass glebe, a satisfying evidence that both parishes were, at one time, portions of the parish of Falkirk.

Chief Land-owners.—William Forbes, Esq. of Callendar is the principal land-owner in the parish. He has lately added to his extensive domains in various parishes in Scotland, the fine estate of Denovan, on the opposite side of the Carron, and is now principal heritor in Dunipace as well as in Denny.

Mr Forbes holds the fourth part of the valued rent of Denny; John Graham, Esq. of Myothill is the other principal heritor of Denny, and resident in the parish, whose estate is about one-seventeenth part of the valued rent. The remaining heritors are about 120 in number.

Parochial Registers.—The parochial registers consist of nine volumes. The births and marriages commence about 1679; but both the volumes are in a dilapidated state. They are merely a list of names, having no speciality connected with them but the date.

The minutes of session commence in 1742. There are great gaps in them, not from decay, but from no minutes, so far as appears, having ever existed.*

Since the commencement of the present century, the session records exhibit all the meetings and the business done; and are subscribed by the moderator. The births and marriages are also entered in properly bound volumes. It is to be regretted, however, that there are some who do not record the baptisms or births of their children. Not a year passes in which parties do not suffer from this neglect.

Antiquities.—On the southern boundary of the parish, about Bankier (Fair-fort), are circular places said to be the sites of Caledonian camps. The great Roman station at Castlecary, a small portion of the remains of which, after seventeen centu-

* Mr Watson, proprietor of Knowhead, a respectable property in the parish, and whose ornamented tombstone is in good preservation in the churchyard, is supposed to have been the first minister of Denny after the Revolution in 1688. His induction is not mentioned in the Presbytery records, but his death in 1733 is mentioned.

There is one remarkable minute in reference to a point, which, a few years ago, was agitated between the heritors and the kirk-session, namely, the payment for the education of poor children. The act 1808 makes it imperative on the parochial teacher to instruct the poor *gratis*; but in this parish, from the parochial school-house being in the northern extremity of the parish, and there being families four miles distant from school, the children of the poor not being able to attend the parochial teacher, on account of this distance, must either be neglected, or taught at some school nearer their dwellings; and in that case, it was contended, the school wages must, according to use and wont, be paid out of the parochial poor's fund. This was resisted: but for peace's sake, the session acquiesced. At that time also, some 20 of the 121 persons entitled to vote at heritors' meetings, objected likewise to the payment of the salaries of the presbytery and synod clerk, and their beadle, &c. The argument from the use and wont payment of such charges was not listened to: and from the causes just mentioned, these officers of the church have not been paid, as heretofore, out of the parochial funds for the poor, since 1831. There is before me a distinct minute of session, dated 28th May 1746, with the list of the elders present *nomination*, and signed William Bennet, moderator, in which these disputed charges are distinctly mentioned as paid, and reported accordingly. In settling the accounts, the words are, "also for the Synod and Presbytery clerk, and Presbytery beadle, as by particular account, the sum of," the amount paid is partly soiled, and partly torn, and not legible throughout, and "also John Bane is allowed by the session twelve pounds Scots for teaching poor scholars."

ries, is still in good condition, is opposite and near to Bankier; and the Fair-fort, it seems not unreasonable to conclude, once stood there to guard the *terra invicta* of Scotland.

The only other antiquity in the parish is that mentioned in the history of Stirlingshire. "In digging at Woodgate, (Woodyet), on the Carron, for the foundation of the newly built house, there, (now called Headswood Cottage,) a rude stone coffin, made of flags, about two-thirds of the ordinary length, placed nearly perpendicular, and containing the bones of an adult person, was found. It is dated, as we have learned, 1301." The stone is placed in the lobby of the cottage, and is seen by every one who enters it. Some of the bones found were, for a while, in the manse of Denny. They are supposed to be the bones of some distinguished person, who fell in connection with the invasion of Edward I. in 1298.

Modern Buildings.—The parish church, built in 1813, is the principal modern building. Next in point of date, is the church built at Denny Lonehead, for members of the United Secession. These two churches are very much alike in external appearance and interior arrangement. They are nearly the same in size, the latter having only about 40 sittings fewer than the Established Church. The parish church has a turretted steeple, about 75 feet in height, which was erected at the east end of the church by voluntary subscription, chiefly of churchmen. Hag's Church, opened 19th July 1840, and built by voluntary subscription, is the neatest church in the parish, and has about 700 sittings.

There is a decent place of worship in Denny, of a square form, belonging formerly to the Burghers, but now to the United Associate Synod Members. It contains nearly 200 fewer sittings than any of the other two. There are various modern buildings, in all parts of the parish, erected since this century commenced. Two-thirds and more of the present town of Denny have been built within that space. The houses are generally of two stories, with garrets, slated roof of blue slates, and finished with sashed windows, &c. Around Denny, and also in the village of Hags and its vicinity, there are different neat cottages as well as some houses of two stories. The most remarkable erection at Hags is a handsome row of collier cottages, amounting to twelve in number, terminated on the east with a large building as a store for the workers at the colliery. These were built in 1836. A manifest improvement is taking place in the farm-steadings on the estate of Herbertshire. The smaller proprietors have done much, within these

last thirty years, to improve their dwellings. Increased comfort and tasteful arrangement are gradually advancing. One now meets with boarded floors, plastered walls and ceilings, and in some instances, with parlours furnished with tables, sofas, and carpets.

A commodious building, adjoining to the town of Denny, for the parochial school, is now in progress. This structure will be an ornament to the town, and serves, among other parochial improvements, to give evidence of the care with which Mr Forbes attends to the educational interest of the youth of the parish, and the domestic comfort of the teacher.

Mills and Manufactories.—There are eleven of these on the banks of Carron, within a mile and a-half of the town of Denny. There are seven of them modern buildings; one for manufacturing oatmeal and pot-barley, one for millboards, one for dye-stuffs, and three for spinning sheep's wool. Herbertshire Mill, the oldest establishment in the parish for manufacturing paper, and the other mills, were the work of last century. Two distilleries have been also erected, one in Denny and another at Bankier, already mentioned. A spade-manufactory, about a mile and a-half down the Bonny from Bankier, has been set agoing, within these few years; and, lastly, a considerable wheat-en, flour, oatmeal, and pot-barley mill, with a small saw-mill, were built, some time since, at Bonnyford, in the eastern extremity of the parish. The waters of Bonny not furnishing adequate power for meeting the demand for the manufactories here, a steam-engine is erected and put to work, when necessary.

III.—POPULATION.

There are no accounts of the population previous to 1755. In that year, the parochial population, as reported by Dr Webster, amounted to 1392 souls; as reported by Mr Fergus in 1790, it was 1400; as taken by the writer hereof, by personal communication in the years 1800 and 1801, it was found to be, 1967; by Government census in 1821, 3364; Ditto, 1831, 3843; as communicated in 1837, and reported to the Royal Commissioners on Religious Instruction when in Denny on 27th February 1838, —4300.

The increase of manufacturing is obviously the main cause of the great and progressive increase which has taken place, and which seems to be steadily continuing. Denny has such advantages of situation, that before another century revolves, it may be a large manufacturing town, with its provost and bailies, churches,

ministers, and elders. About half a century ago, Denny was only a hamlet adjoining the church, containing unsophisticated prayerful families.

Population in villages,	2421
in the country,	1879
	4300
The yearly average of births for the last seven years is	86
of deaths,	70
of marriages,	35
The average number of persons under 15 years of age, is	1597
between 15 and 30,	983
30 and 50,	1337
50 and 70,	349
upwards of 70,	34
	4300

Of proprietors of the yearly value of L.50 and upwards, there are	41
There are of unmarried men, bachelors and widowers, upwards of 50 years of age,	21
females, upwards of 45,	88

Insane persons, 1 ; fatuous, 1 ; blind, 3 ; deaf and dumb, 2.

Amusements.—Curling, in its season, is eagerly pursued, and the confidence of the Denny players, in their superior skill and tact, prompts a challenge every season to their neighbours. A year or two ago, a Denny Curling Club was formed. John Carnie, Esq. of Curling Hall, Largs, so well known to the curling world by his zeal for curling, received at Denny the rudiments of his eminent skill in curling. That gentleman is the second son of the late Mr Niel Carnie, who was a principal partner in the firm of Messrs Thomas Shiels and Co. of Herbertshire Printfield. On the Carron, and the reservoirs of the printfield, his son, John, first shone as a curler, and imbibed the knowledge which enabled him to write a standard work on curling, and to bear the palm for the invention of a curling rink, which, on any morning, when there is a little frost, may, by a slight suffusion of water over its surface, present in four hours, (the thermometer at 28°,) the finest and firmest ice a curler could desire.

A Denny Archers' Club was instituted in 1828, for the purpose of enjoying the amusement of archery. The club competes annually for the captaincy, at the distance of 100 yards, the captain being preses for the year,—for two poisoned arrows from the island of Mombase, at the distance of 160 yards,—for a silver medal, at 50 yards,—for three prizes of arrows, at 30 yards,—and for a silver arrow, at the same distance,—the successful competitors becoming vice-presidents. The medal and arrows remain in the possession of the successful competitor ; the others are shot for annually. Members are admitted by ballot,—one

black-ball excludes. The club dine together in October, annually; and the greatest harmony has existed among its members, since its institution.

The people generally enjoy in a good degree the comforts of society, and are contented with their situation. Unprincipled* newspapers, are the chief causes of any discontent that exists. Their general character, however, is good. They are rather what may be called a church-going population. There are sometimes, but not often, prosecutions for poaching. Smuggling is annihilated. Would that drunkenness were so also!

IV.—INDUSTRY.

Agriculture.—A practical and extensive agriculturist has favoured the writer with the following statements. He computes the whole number of acres within the parish at 7520.

Of the above number there are either cultivated, or in occasional tillage,	6000
Acres which have never been cultivated, and which remain constantly waste or in pasture,	1199
Acres which might, with a profitable application of capital, be added to the cultivated land of the parish, whether that land was afterwards to be kept in occasional tillage or in permanent pasture,	300
There is no undivided common in the parish.	
Under wood, either natural or planted, there are	181

The kind of wood planted is Scots fir, larch, spruce, ash, elm, birch, oak, lime, and plane. The natural wood is, oak and birch, all kept properly thinned and in good order. The time of felling the planted wood is generally in the months of February and March; and the time of cutting the natural or copse-wood, and all oak for peeling, is the month of May. The time for thinning wood is in winter.

Rent of Land.—The average rent of arable land per acre, is L. 1, 15s. The average rent of grazing oxen and yeld cows per annum, is L. 3 each; of milk cows, L. 4 each; of ewes or full-grown sheep, 17s. each.

Live-Stock.—No sheep are bred in the parish except pets, which are mostly of the Leicester and Cheviot kind. Ewes are sometimes grazed in parks, which are of the black-faced breed. The cattle are generally of the Ayrshire sort, and the breed very much improved of late years, by giving premiums for the best bulls and cows, &c. Horses are mostly of the Clydesdale description, and the breed also much improved by premiums for the best stallions and brood mares. The style of farming is also greatly improved

* The public morals and peace are at this time both suffering from what is called Chartism. The principles of Chartists, as exhibited here, are infidel and anarchical. Few, happily, countenance them.—(1841.)

by premiums bestowed annually on the best ploughman, and for the best managed farm.

Draining is much neglected in the parish, from the want of capital among the tenants. The general duration of leases is nineteen years, which is considered to answer well for both proprietor and tenant. The state of farm-buildings and enclosures is not good. The principal improvements which have recently been made in the parish, are by the Messrs Gilmour of Knowhead, by means of thorough draining and trenching the most part of their lands, which are now worth double the rent in consequence.*

The want of capital prevents many a tenant from liming and purchasing manure for his land. Were landlords to allow so much for every chalder of lime which the tenant laid on the farm, it would increase both the produce and the rent. To give premiums for the greatest quantity of draining on a farm—for the largest and best field of turnip and potatoes,—for the best laid down field of hay, &c. would give a stimulus to agriculture of the most beneficial description. Sheds and straw-yards are likewise much wanted in this parish, to enable the farmer to feed and rear more stock, and so to make more manure and sow more turnips for feeding, &c.; for the more manure, the more turnips; the more turnips, the more cattle; and the more cattle, the more manure again, and so on indefinitely.

Quarries and Mines.—The quarries are of freestone and whinstone. There are several mines of iron ore in the glen of Castle-rankine, and on the estates of Herbertshire and Myot-hill: but they are not, at present, from the want of a remunerating price, worked. The coal mine at present at work in the parish, is that of Banknock, already described. About ninety workers, young and old, are employed in the various operations going on there. Three steam-engines are constantly at work.

Produce.—The average gross amount of raw produce raised in the parish, as nearly as can be ascertained, is as follows:

Oats,	.	.	9000 quarters.
Barley,	.	.	1500
Wheat,	.	.	500
Beans,	.	.	100
Pease,	.	.	100
Rye-grass hay,	.	.	200 tons.
Meadow hay,	.	.	100
Flax,	.	.	2

* Draining may be said to be the rage at present. All proclaim the increase of produce which follows.—(1841.)

which, estimated at the rates formerly mentioned, makes the value of the raw produce to be as follows :

Produce of grain of all kinds whether cultivated for the food of man or of the domestic animals,	L.15,130	0	0
Potatoes, turnips, cabbages, beet, and other plants cultivated in the fields for food,	3600	0	0
Hay, whether meadow or cultivated,	1050	0	0
Crops cultivated for the arts, as flax,	70	0	0
Land in pasture, rating at L.3, 10s. per cow or full-grown ox grazed, or that may be grazed for the season, at 17s. per ewe or full grown sheep, pastured, or that may be pastured for the year,	2000	0	0
Mines, whether coals, quarries, or metals,	500	0	0
Miscellaneous produce not enumerated,	100	0	0
	L.22,450	0	0

Farmer's Club.—A farmer's club was recently instituted in the parish for encouraging agriculture in all its departments : it is exciting attention to ploughing, breeding, &c.

Manufactures.—The mills on the river Carron, in the parish of Denny, have been already stated to be eleven. The uppermost are Garvald mills. There are two of them, and both are employed in grinding charcoal for moulders, &c. Each mill has a miller at 12s. per week of wages, and a man, horse, and cart, to bring charcoal to the mills, and to carry the ground produce to the moulders. The carters have each 12s. per week.

The next mill down the river is Tamaree, for grinding oats, and preparing pot-barley.

The next lower down is Mr R. B. Lusk's mill at Carron Grove, for manufacturing millboard, and different kinds of coarse paper. The workers employed are, 15 men, 2 women, 2 lads, and 6 boys; wages are paid every fortnight, and average about L. 27 every fortnight. The materials used are almost exclusively old tarred ropes, of which fully one ton, on an average, is used daily. No rags are made use of in this manufactory. The goods manufactured are almost exclusively millboards, which are used for the beads of books, of which from four to five tons per week are manufactured. Sometimes a little coarse paper is made, used for sheathing ships and other purposes, as also some large coarse millboards, used by engineers for making steam-joints tight. The mill is lighted by gas, and the manufactured goods dried by steam and heated air. The excise duty paid is from L. 300 to L. 400 every six weeks.

Next in order, down this lovely though busy spot on Carron Banks from Tamareelin, is Herbertshire Mill, the property of William Forbes, Esq. Messrs Alexander Duncan & Sons carry on at this mill

the manufacture of writing-paper. They employ upwards of 20 men and 50 women. The wages are paid monthly ; on an average, 15s. per week for the men, and 5s. for the women : besides these, 2 men and 4 horses are constantly employed carting rags and coals, and carting the paper to Grangemouth for shipment to London. The workers principally reside in Denny and Fankerton, a small village in the parish up the Carron, and in the neighbourhood. The following is an account of the process of paper-making at Herbertshire Mill : As soon as the rags are cut by women across a scythe blade fixed into a table covered with wire-cloth, for the purpose of getting rid of the dust and sand, they are passed into the boiling-house, where they are boiled for twelve hours ; afterwards, they are washed, and broke into a pulp by an iron cistern, called a paper-engine, capable of holding one hundred weight of rags, which are beat by a roller with thirty-six steel bars, which turn on a plate in the bottom of the cistern. Five of these engines, of twenty steel bars, are kept constantly going night and day, requiring upwards of forty horse power to drive them and the other requisite machinery. After the rags are broke in and bleached for twenty-four hours, they are beat into pulp or stuff ready for passing on to the paper-machine, perhaps one of the most complete pieces of machinery ever invented in this country ; as, in one room of 60 feet in length, by 25 feet wide, one may see the stuff much resembling churned milk, passing by means of a fine web of wire-cloth fifteen feet long into a series of rolls used in pressing out the water, and forming the paper into a firm body. It then passes into a set of cylinders heated by steam, from which it is reeled into rolls in a perfectly finished state, quite dry and pressed, ready for use. Six of the rolls are then put on to the cutting-machine, which cuts them into the sizes required. The cutting-machine is the invention of Messrs Foudrinier of Hanley, Staffordshire, and patent. It is capable of cutting 144 sheets per minute of post or writing-paper. On an average, 26 cwt. of rags are cut per day in the rag-house, and 21 cwt. of them beat into stuff, yielding an average of from 1600 to 1700 lbs. per day of twenty-four hours, as all the machinery is kept going night and day. The duty paid every six weeks averages L. 320 ; the wages every month, L. 100 ; carting, and other carriages, L. 40. The water-wheel for driving the paper engines is 24 feet diameter, and fully 12 feet wide, all iron, and weighs 33 tons. Another small wheel is used for driving the

paper-machine, 22 feet diameter, and 18 inches wide. The works are lighted with gas, and four tons of coals are used daily.

There has been a considerable branch of the woollen trade carried on in this parish, for thirty years past.

The next three mills are at work in this manufacture. They are driven by water power, and are extensively engaged at present in the manufacture of tartan and fancy shawls, and linsey-woolsey stuffs, solely upon account of Messrs Wingate and Son and Company of Glasgow. Mr John Wingate of this firm is well known in the country, as a distinguished Constitutionalist, and one of the munificent Church Extensionists of Glasgow. The quantity of wool wrought up into these goods exceeds 160,000 lbs. annually. The various branches of the manufacture are included, viz. spinning of the yarns, dyeing, weaving, and the finishing of the goods, which afford employment to nearly 200 persons of both sexes, young and old. The wages paid average L. 300 per month. The water of the river Carron being uncommonly pure and soft, is peculiarly adapted for cleaning and dyeing, producing bright fancy colours, so requisite in that description of goods. The three mills are all on Carron, and near each other, two at Stoneywood, and one at Randolph Hill,—lighted by gas, and heated by steam. A recent cut from Tamaree lin supplies plentifully with water four of these mills. Before that cut was executed, there was no paper-mill below Tamaree lin, excepting Herbertshire mill, at which, according to the old practice, paper was made by the hand. Combinations among operative paper-makers were, at that time, a frequent cause of great annoyance to masters, and of misery to many innocent families. The improvements mentioned have put an end to combinations among paper-makers.

A mill for chipping, rasping, and grinding dye stuffs, belonging to the firm of Messrs John Gray and Son, stands on the river bank a little below Herbertshire mill. The company have lately enlarged their premises by the works on Castle Rankine Glen, so that they now not only furnish the dye stuffs, but, by means of the addition referred to, provide at once to manufacturers of fancy woollen, cotton, and linsey-woolsey articles, the liquor for the colours desired. The company employs 21 hands, and pays monthly L. 46, 12s. of wages.

Lowest on the river in this parish, is Denny corn and pot-barley-mill, belonging to the estate of Herbertshire, which has a large thirlage astricted to it.

Distilleries.—There are two distilleries in the parish; one is in the close vicinity of Denny, under the firm of Macpherson and Macnaughton. It consumes yearly 3500 quarters of malt made from barley, which produces 53,500 gallons of proof spirits. Two stills are used: contents of the wash still, 500 gallons; of the low-wines still, 400 gallons. Bear or big makes the finest spirits: but this is not so profitable to the distiller. The best season for distilling is in spring; and for fermentation, autumn. This distillery affords a ready market for the barley of the farmers in the vicinity, and of others more distant. Such is the confidence of the farmers in the Company, that it is a common practice to forward the grain at once to the distillery, and, if received there, to leave the settlement of the price to the Company, without previous bargain. The other distillery is at Bankier, in the southern division of the parish, on the Bonny, and is much the same in respect of consumption of barley, and of the quantity and kind of spirits produced.

Brick-Work, &c.—A brick and tile-work has recently been set agoing in this district of the parish, which will be a great accommodation to the parish and neighbourhood.

About a mile and a half east, on the lands of Knowhead, a spade-manufactory, famed for the excellence of the article manufactured, has been erected. An adjoining morass furnishes water-power for working the ponderous hammer by which the materials for spades are consolidated, and afterwards beaten into plates. The wooden handles for the spades are likewise prepared at the mill; and the goods sent to the market, fit for immediate use.

It remains only to notice, that there are two extensive calico-printing establishments in the immediate vicinity of the town of Denny, although locally in the parish of Dunipace, of whose labourers three-fourths and upwards have their habitations and families in the town of Denny. The labourers, old and young, employed at these printfields, amount, on an average, to 1000, three-fourths of whose monthly wages amount, on an average, to L.1200. On the whole, then, it appears, that there are about 1100 individuals of the parochial population who are workers at manufactories, the average produce of whose monthly wages is L.1, 13s. to each individual, of whom some receive L. 8 per month, and others 8s. per month.

The whole machinery of the mills enumerated, and of all the manufactories west from the junction of Bonny with Carron, (which

takes place about two miles east from Denny,) were driven, until within these few years, by Carron water alone. The supply of Carron, however, from agricultural improvements going on in the high grounds through which the river flows, was unsteady; and, within these five or six years, the proprietors of the mills upon its banks, in order to obtain a fuller supply of water-power, were induced to form themselves into a society, and, by subscription, produced funds to erect an embankment for a reservoir upon the Earl's-burn, about nine miles above Denny. The artificial lake thus erected, covers an extent of nearly 60 acres. The embankment is 22 feet in height. The cost of the whole has fallen little short of L. 2000, and was borne by a few individuals. On the 24th of October 1839, after a great fall of rain, the embankment gave way. Much injury was done, by the resistless torrent, to property along the whole course of the Carron downwards.

V.—PAROCHIAL ECONOMY.

Market-Towns.—Denny is not a market-town. Arrangements were made, some twenty years ago, to have it erected into a market-town, by the Honourable Charles Elphinstone Fleming of Cumbernauld. But the different dealers were not friendly to the proposal, and preferred petitioning for a baron bailie, before whom they might prosecute for payment of their accounts. The bailie was obtained, and has power to give judgment, and enforce payment to the extent of L. 2.

Some idea of the business done in Denny, may be formed from the following statement, made from actual enumeration:—There are 21 houses and grocery shops licensed to sell, beside groceries, ale and spirits,—of these 19 sell spirits over the counter, the remaining 2 are common whisky-shops; 3 stationers; 4 bakers; 1 pastry-shop; 4 butchers; 2 excise-officers; 7 wrights; 3 smithies; 4 medical practitioners; 4 schoolmasters; 1 writer; 2 ministers of the Gospel; 4 haberdashers and cloth shops; 10 shoemakers; 1 tinsmith; 1 gas manufactory; 2 coopers; 5 tailors, two of whom are clothiers; 1 messenger; 1 dame's school.

An intelligent member of the Total Abstinence Society has handed me a note, which shows what becomes of a great part of the wages of labourers in this parish: "In Denny village, and that part of Denny on the north of Carron, and between Denny and Fankerton, from October 1835 to October 1836, there were sold by the retailers of spirits, 10,600 gallons of spirits, at a cost

to the inhabitants of this small district of upwards of L. 4300,—besides the value of the time lost while drinking, and in consequence of drinking, which I am sure would be underrated at L.800 more. This quantity of spirits, I understand, would consume nearly 700 bolls of barley.” Add to this enormous amount, the quantity of spirits sold on the southern side of the parochial ridge, and it will appear that there are no less than L. 7000 annually spent in this parish, in the purchase of spirituous liquors ; a sum nearly equal to the rental of the whole parish. “ How easy a matter it would be,” observes the gentleman referred to, “ for the working classes to make grain cheap, without any alteration of the Corn Laws, and to make themselves most comfortable, without any reduction of taxation.”

Villages.—There are four villages in the parish,—Denny, Hags, Fankerton, and Loanhead. From Broomage toll-bar to where the road strikes off right and left near Hags to Glasgow, for the space of a mile, the houses are so thickly planted as to promise to become, in the course of twenty or thirty years, one continuous street.

There are about 190 parliamentary voters in this parish.

There is one post-office, the average revenue of which is annually about L. 300. The length of turnpike roads in the parish is ten miles and upwards. In winter, the number of public carriages which pass and repass daily through the parish, is 22. The bridges and fences within the parish are kept in good order.

Ecclesiastical State.—The parish church stands west from the old village of Denny. Its situation is sufficiently convenient for the parishioners on the north side of the parochial ridge ; but not so for the inhabitants of Hags and Bankier. It was built in 1813, and cleaned and beautified internally, in 1838, by the voluntary contributions of the people, and is at present in good and comfortable repair. It contains 767 sittings, at eighteen inches for each sitter. On sacramental occasions, there may be 900 persons within its walls. Ordinary Sabbath days’ attendance 560. Communicants, on an average, 512. There are seven free sittings for the poor. The minister, elders, and schoolmaster have each separate accommodation ; and their sittings, amount to 28. The manse was built in 1803, and is in good repair and comfortable. The glebe consists of four arable acres, worth L.10 ; and half an acre for manse, offices, and garden. The stipend is 16 chalders,

one-half meal, the other half barley. L. 10 are allowed for communion elements.*

There are two Dissenting chapels in the parish, both now belonging to the United Secession Church. The one at Denny Loanhead is among the oldest and strongest, in point of wealth, in the Secession Church. When the Royal Commissioners for Religious Instruction were here on 27th February 1838, the minister of that church stated that the erection took place in 1738, and that the first minister of it was ordained in 1751. There was a dispute, as before noticed, in the parish, after Mr Watson's death in 1733, about his successor. The cruel operation of patronage was then beginning to be felt; and some of the people, by proceedings that took place during the vacancy, were reluctantly constrained to secede. Another dispute arose after Mr Turnbull's death in 1765, —when, at length, the minister most unacceptable to the parishioners was intruded upon them, and then another party betook themselves to Loanhead. Since that time, the congregation there has not been augmented by any violent proceedings on the part of the Assembly. The minister farther stated before the Commissioners, that it is increasing but slowly; that the communicants are on an average 512; and that of the adherents to the congregation, 10 were resident in St Ninian's, 67 in Dunipace, and 250 in Falkirk,—in all, 357 beyond the bounds of the parish. His stipend, as understood to be reported to the Royal Commissioners, is, besides a manse and garden, L. 170, and L. 10 for the expense of two sacraments annually, and L. 2 for attendance at each synod. He said he had no bond or security for its payment. His church was stated to have 731 sittings, and the average number of regular attendants to be 560.

The other Dissenting chapel is in the town of Denny. It was originally Burgher, as the other was Antiburgher; and both are now of the United Secession. It was established in 1797, when Mr Fergus, the parochial minister, was incapacitated for duty by old age. This chapel has about 500 sittings, as is supposed. The con-

* 5th February 1840. The Court of Teinds was pleased to augment the stipend to 19 chalders, one-half meal, and the other half barley, and the sum for communion elements to L. 15 per annum.

A new church at Hags was opened for public worship on 19th July 1840. On 15th September 1840, the Rev. Colin M'Culloch was, without one dissenting voice, chosen minister, and, on 14th January 1841, he was ordained pastor of the parish, *quoad spirituaia*, of Hags. The church has nearly 700 sittings and 550 Sabbath occupants.

gregation, through no fault of the minister, who is the first that was placed in it, has fallen off to about 200 individuals in ordinary attendance on Sabbath. The communicants, he was understood to say to the Royal Commissioners, were once 320, but are now not more than 271. His stipend is L. 100 per annum. He has no bond or security for its payment. He has a manse, a garden, and small glebe.

There are not four Episcopalians in the parish : but the Roman Catholics may amount to 50, nearly all Irish.

There is a Bible Society connected with the Established Church, for which there is annually collected and subscribed about L. 7. The four schemes of the General Assembly, and the new object for promoting the restoration of Israel to the Christian Church, are all less or more supported by the people of the Establishment. The Dissenting brethren do much in the way of similar works in their congregations ; in particular, the contributions to Christian objects by the congregation at Loanhead, are stated to be large and exemplary. The parochial contributions for these objects may be estimated at L. 80 annually. The church door collections are not more than one-fourth of this sum.

*Ministers of the Parish of Denny since the Revolution 1688. **— Thomas Watson ; ordination, time unknown ; death, March 1733. William Bennet, † 22d August 1738 ; translated to Duddingston. Edward Anderson, 23d September 1747 ; died April 1749. James Turnbull, 14th August 1750 ; died 20th Decem-

* Communicated by the Rev. Alexander Leitch, Clerk of the Presbytery of Stirling.

† Probably ; for all the letters on the tombstone cannot be traced.

‡ The parish was in a state of disquietude and dissatisfaction, during the five years which intervened between Mr Watson's death and the induction of Mr Bennet. A presentation was issued by the Crown in favour of Mr James Stirling, and another by Hertshire ; but the majority of the parish were in favour of a Mr Penman. The great objection against Mr Stirling was his acceptance of a presentation. This objection seems to have weighed very much with the Presbytery, which, at that time, was decidedly of an anti-patronage character. Once, the Presbytery refused, at the order of the Commission, to take Mr Stirling on trials for ordination, and twice thereafter, the order of the Assembly itself to the same effect. For the third time, in 1737, the Assembly issued its order to effect the settlement before September, that year ; and in case of its not being done by that time, the synod of Perth and Stirling, at its meeting in October, were to take up the case, and to proceed with the settlement ; and in case of their not doing so within a given time, the Assembly appointed a commission to accomplish it before their next meeting. Even this peremptory order, the Presbytery found means of evading. What became of Mr Stirling afterwards, does not appear from the record. Some time thereafter, a petition is presented to the Presbytery, to allow certain probationers therein named, to preach as candidates. Mr William Bennet, one of these, was chosen and ordained 22d August 1738.

ber 1765. Thomas Fergus,* 22d June 1769; died 25th January 1801. John Dempster,† 25th April 1800.

Education.—The total number of schools in the parish is nine. There is one parochial school; one partially endowed; the rest are all unendowed. Besides these nine, there is one dame's school for reading, sewing, &c. carefully taught.

The parochial teacher has all the legal accommodations. His salary is L.34, 4s. 4½d.

There are few of the young between six and fifteen years of age who cannot read a little. The schools are quite numerous enough, and sometimes injurious to each other. Two qualified and endowed teachers for the town, and three for the other parts of the parish, qualified and endowed also, would be sufficient, and might do more good than is done by all the ten at present.

The people are partially alive to the benefits of education; but the concern of parents for the education of their offspring seems on the decline.

Literature.—There is one parochial library in Denny, containing at present 1100 volumes. Entry-money as members, L.1, 1s.,—and 1s. every six months afterwards. It was instituted in 1806. Books are lent to non-subscribers at the rate of 1s. 6d. per quarter. There is also a Denny Religious Library. Number of volumes about 400; entry-money, 1s.; out readers, 6d. per month;—and Denny Loanhead Congregational Library, instituted in 1831; number of volumes nearly 500; dues, 1s. 6d. per quarter.

There have been several public reading-rooms, some for persons who were not artisans, and others for artisans; but, from different causes, they have failed, and at present there are none.

Societies.—The following are the names of the societies in Denny, besides those already mentioned: Denovan Printfield Friendly Society, instituted 1802; Herbertshire Printfield Friendly Society, 1816; Herbertshire and Denovan Friendly Society, 1817; D. L. St Andrew's Lodge, 1825; Hags Friendly Society, 1830; Banknock Friendly Society, 1834; Denny Ploughman's Society, 1834; Denny Horticultural Society, 1836; Denny and Dunipace Total

* After Mr Turnbull's death, there was a dispute about the presentation, between the Crown and Herbertshire. Mr Fergus was the Crown presenter.

† Mr Fergus having become, through the infirmities of age, unable for his public duty, agreed to have an assistant and successor. Through the influence of William Morehead, Esq. of Herbertshire, the Crown consented to give the parish a list of five. Mr Dempster was one of the list, and on the 27th July 1799, was chosen unanimously, with the exception of one voice, assistant and successor to Mr Fergus.

Abstinence Society, 1837; Denny and Dunipace Funeral Society, 1837; Denny Farmer's Society, 1838; Denny and Dunipace Mutual Instruction Society, 1838; Independent Order of Odd Fellows Friendly Society, 1838.

Savings' Bank.—There was an attempt made, in 1825, to set on foot a savings bank, which failed. Mr Gray, the Actuary of the Glasgow Savings Bank, and other benevolent individuals, renewed the attempt in 1837. There is a fear of consequences, if masters should know what gains their servants make. It failed also.

Poor and Parochial Funds.—The average number of persons receiving parochial relief is 32. The average amount allotted to each per month, 5s. 9d. The average annual amount of contributions for their relief, collected at church doors, L.14, 5s. 7d.; assessment, L.72. No other regular mode of procuring funds.

Every winter, however, some benevolent persons give donations of coals, which the farmers lay down gratis at the doors of the poor. L.7 or L.8 per annum, on an average, used to be added to the poor's funds, by mortcloth dues. But there is hardly ever now a mortcloth put over the coffin.

One meets now and then with persons who, in the old Scottish spirit, refuse aid from the poor's funds. In general, however, they are abundantly clamorous.

When the new church came to be used as a place of worship in 1814, a dispute among the heritors arose as to the division of the sittings. This suit continued five years. Never was the parish happier than during these five years, and never was the church better or more regularly attended, and never were the collections at the church door more liberal. The people paid no seat rents, and they poured their money into the church plate; L.1, 6s. and L.1, 10s. were not uncommon collections in these days, on ordinary Sabbath days. The average of each of the fifty-two Sabbaths of the year, was L.1, 2s. The plea was ended, and the heritors demanded seat rents. The people considered this unreasonable: but, rather than leave the Establishment, they came to an understanding that they would pay seat rents, but withhold their contributions at the church door. There was no assessment for the poor, at that time. The collections began gradually to diminish. Offence was taken at the session having sent a lunatic to the Glasgow Asylum. The lunatic was recalled and given to his relations. Objections were then taken to

the payment of the wages of teachers for instructing poor scholars,—the payment of the presbytery and synod clerks, of the beadies of those courts, and of the precentor and parish beadle : all these payments were resisted. The cleaning of the church was considered an expense, that the heritors had nothing to do with. The session were prevented advancing money for any of these purposes, unless at their own risk, and the alimant of the poor woman that cleaned the church, was stopped. The session were even threatened with a prosecution, to cause them refund the outlays which had taken place ; but happily, at every annual settlement of accounts in presence of the heritors, the accounts had been docqueted as approved. The session, however, were prohibited making any of these payments in future, out of the poor's funds. In these circumstances, the elders resolved no more to collect. The funds were wholly handed over to the heritors, who have them still in their hands, to the great relief of the minister and elders. The procedure of the heritors was not approved by others, and the collections continued to decline. For a while, the heritors, under the excitement of novelty, stood at the collection plates : but at length they have, almost without exception, given up collecting : and the grave-digger, the servant of the heritors, sits commonly at the plate, and receives, it is said, 1s. per day, for the discharge of this duty. While the session took charge of the poor's funds, the expense to the heritors was only L. 1, 1s. per annum, as an acknowledgement to the session-clerk for acting as treasurer, beside his regular salary of L. 2, 2s. per annum, for discharging the duties of session-clerk. The state of matters now is instructive. The session did not interfere, after their surrender of the funds, to discourage the collections, except that they withheld their own contributions, understanding that the collections were to be employed in the prosecution against themselves. Instead of L. 70 per annum of collections at the church doors, there is now only L. 14, if so much.* Instead of L. 1, 1s. to the treasurer, a writer in Denny is paid L. 10 per annum for being treasurer and clerk, and the session-clerk's salary of L. 2, 2s. is continued, as it must be, by law. Instead of there being no regular assessment, there is now a regular assessment of L. 72 per annum, which threatens to rise, notwithstanding all possible care ; and, moreover, there are hardly any seat-rents col-

* The collections for eight weeks lately were reported to be 2s. every Sabbath.—(1841.)

lected, for the people are utterly averse to the payment of such an impost. It is due to the memory of one of the kindest and most gentlemanly of characters, the late William Morehead, Esq. of Herbertshire, to say, that he had no hand in the ruinous proceedings which have been mentioned ; and his successor, the present chief heritor, is far above such doings.

Fairs.—There are two fairs held annually in the parish,—one about Whitsunday, and the other about Martinmas.

Fuel.—The fuel is chiefly coal from Banknock, and the neighbouring coal-pits.

Drawn up February 1839.

Revised April 1841.

PARISH OF KILSYTH.

PRESBYTERY OF GLASGOW, AND SYNOD OF GLASGOW AND AYR.

THE REV. WILLIAM BURNS, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—**ANCIENTLY**, *Monaebrough* was the name of this parish, supposed to be a compound of *Monaugh*, hilly, and *Ebrugh*, streams; and the name is very descriptive of the eastern district of this parish, which, till 1649, constituted the whole parish. At that period, what is called the West Barony was disjoined from Campsie, and added to *Moniabrough*,* or the East Barony, which continued to be the name of the parish till about a hundred years ago, when the whole parish was more usually designated Kilsyth. The Rev. James Robe, who was ordained minister of Kilsyth in the year 1713, and wrote his “ Narrative ” in 1743, speaks of the parish “ Kilsyth, till lately called Moniabroch.” The oldest set of tokens, so late as the year 1755, have MK stamped upon them, doubtless “ Moniabrough Kirk ; ” and the communion cups, 1731, are marked “ For the Kirk of Monaebrough.” Thus, in solemn affairs, the older name was longer retained than in common usage. The estate of Livingstone, Viscount of Kilsyth, the great proprietor of the district, when the West and East Baronies were both included in the same parish, naturally gave name to the parish. I conjecture that the name

* The spelling in the records is always Moniabrough.

Monibrough, originally applied to the kirk, which was anciently on a part of the Barwood, where the burn of Abroch rises, and which well corresponds to the description implied by the name; and having been used to designate the kirk, would very naturally be applied to the whole parish, till the addition from Campsie of a valuable part of the estate of Kilsyth, gave occasion to the new name.

With regard to the etymology of Kilsyth, the first syllable is familiar to all; the second, *syth*, is somewhat uncertain. It is either the name of one of the saints of the Romish calendar, or derived from *sythin*,* which signifies peace. In the West Barony, near a place called Chapel-green, there was a tumulus, in which an urn and ashes were found; and there is a tradition, that this cairn was erected over the dead slain in a battle betwixt the natives and the Romans, which was the forerunner of a peace.

Extent and Boundaries.—In form, the parish approaches to an irregular oblong; running in length along the north high-road from Edinburgh to Glasgow 7 miles. The mean breadth is fully one-half of its length. It contains nearly 24 miles square. The rivers Carron on the north; and Kelvin running west, and Bonnyburn running east, on the south; Inchwood burn on the west; and the Bushburn, on the east,—form the natural boundaries of the parish. It lies contiguous to St Ninians and Fintray, on the north; to Cumbernauld and Kirkintilloch, on the south; to Denny, on the east; and Campsie, on the west. The Kelvin, which rises at Kelvinhead, near Ruchill, three miles east from the town of Kilsyth, and which runs, or rather creeps, nearly parallel to the great canal, and very near it, divides the parish from Cumbernauld and Kirkintilloch, and from the county of Dumbarton. The whole of Kilsyth parish is situated north of the Kelvin, with the exception of the two houses at the jetty to the south of Kelvinhead, which, though beyond Kelvin as it now runs, are considered as in Cumbernauld, as to payment of road money, &c. but not ecclesiastically. The houses at Craigmarloch are in Cumbernauld, although the westernmost house is situated where the Kelvin previously flowed. With the above exception, the parish of Kilsyth does not touch the canal, although very near in its approaches to it.

Topographical Appearances.—The greater part, excepting the hill and moorland district to the north, exhibits very strikingly the

* See Nimmo's History of Stirlingshire.

appearance of a considerably extended but narrow strath, which might be named Strath Kelvin; insomuch that (as Dr Rennie described in the last Statistical Account), "at one point it seems to be part of a great ditch intersecting the kingdom, terminating at the Frith of Forth on the east, and at the Clyde on the west, being nearly equidistant from either." About two miles from the east end of the parish, is Rugh-hill, the highest part of the strath whence the Kelvin runs west, and the Auchincloch Burn and Bonny Water run east. The Dullatur Bog is almost on a level with the canal, which cuts it into almost equal parts, about 160 feet above the level of the Forth at Grangemouth. The names of places, in the direction westward, clearly indicate their former state of partial immersion; *e. g.* Bog-side, Bog-house, Gaval, Inch-wood, Netherinch, Inchterff, Inchbelly, Auchinvoll. The north-eastern part of the parish abounds in small knolls of a very picturesque description, the soil generally light and gravelly; whereas that of the western is of a deep moss and loamy description, till it rises towards the north, which presents a southerly exposure, affording excellent green pasturage. The Kilsyth hills form part of that moderately elevated ridge which begins at Greenock, running through Kilpatrick, Baldernock, Campsie, Kilsyth, and Denny, and thus intersects the kingdom from west to east betwixt the two friths of Clyde and Forth. None of these hills rise to a height which can be termed majestic; yet the Meikleben, which seems to unite the Campsie and Kilsyth hills, is 1500 feet above the sea,—a noble-looking hill, the top of which is seen from a great distance in the direction of Lanark, and forms a striking land-mark from the Frith of Forth. The Garrel Hill and Tomtain, or Lairdshill, in this parish, are 1300 feet in height. From the summit of the latter, a quarter of a mile to the west of Bardowie, on the Takmadoon road (Touchmadam, supposed), there is one of the most extensive and varied views in the kingdom. Part of at least fourteen counties can be seen from it. To the south, an extensive plain stretches out to the naked eye to Broadlawhill, in the parish of Tweedsmuir, Peebles-shire; to the west, as far as Goatsfell, in Arran; to the east, to the Pentland and Lammermuir Hills; to the north-east, the Lomonds, in Fife, are seen; while the prospect to the north presents an endless succession of hills upon hills. The southern side of the strath is a more gentle rising ground, in the direction of Graham's Dike, by Cal-

lendar woods, Cumbernauld, Dykehead, Craigmarloch, Croyhill, Bar, and Strowanhill.

Meteorology.—As the parish lies along the line of hills which reaches the Atlantic to the west, showers come chiefly from that quarter, especially when the winds are westerly, which they are a considerable part of the year. The air is generally pure and salubrious. The inhabitants of the country part of the parish, with the exception of the miners, are generally healthy, and arrive at considerable longevity. One man, Robert Miller, died two years ago, at the age of 101, and had lived for the most part in this parish, and in the married state, (his wife dying at the age of 86,) for sixty-four years. There are several persons of both sexes fourscore and upwards. The town of Kilsyth is favourably situated for health, yet few of the inhabitants, (chiefly weavers,) arrive at old age.

Mr Robe (Narrative) records, that, in the year 1733, on the 27th of June, a very remarkable thunder storm took place. The morning was fair, the sky clear, the sun bright. About eleven A. M. a gleamy kind of darkness overspread the sky; a water-spout seems to have fallen; numberless torrents poured from the hills, sweeping houses, bridges, corn, and cattle all before them. Several acres in the valley were covered with stones of all sizes, from 20 tons to small gravel; in some places, from 4 to 6 feet deep. In the year 1832, June 14th, we were visited with a similar water-spout and thunder storm, with hail, and torrents of rain. For two hours, the storm was truly terrific, and threatened awful devastation.

Geology—Soil.—The East Barony and the West, into which divisions the parish has been distinguished since 1649, are remarkably unlike each other. The former consists, for the most part, of a great number of rising grounds in the strath, of a gravelly description. Although the soil is, for the most part, light, it is productive, and easily cultivated. Immediately around Kelvinhead, east and south, the soil is of considerable depth, of a black loam, bearing excellent crops. Proceeding westerly by Gateside, Shawend, Woodend, Barr, and the glebe, it is much shallower, a light sharp soil lying generally upon blue whin. The valley west of the town, comprising also about half-a-mile to the east of it, is the richest soil in the parish, particularly the fields along the Garrel-burn to the north of the church, and the farm of Boghouse, and part of Gaval along Kelvinside, which yield abundant crops of all de-

scriptions, being much of the nature of carse land. On the whole, the light gravelly soil prevails, and, consequently, it is much better adapted to the production of barley and green crop, than for wheat or beans, &c.

In the East Barony, there is a considerable line of ironstone, consisting of strata from four to fourteen inches thick, separated from each other by seams of clay or dalk, and subdivided by perpendicular fissures into small square wedges from six inches to two feet, which has been worked by the Carron Company for a considerable time, and to whom the estate of Tomraver, to the east of the village of Banton, belongs, containing two tolerably good arable farms. In the northern hilly part of both baronies, there are seams of excellent coal at no great depth, the western approaching to the nature of the best Newcastle coal, the eastern of a harder quality, but also valuable, and now more difficult to work.

The Garrel glen freestone quarry is of excellent quality, easily wrought, of a fine whitish colour, and durable; not much inferior to the famous Possil quarry near Glasgow. The water which flows through this romantic glen, possesses the remarkable quality of forming curious vegetable impressions upon the surface of freestone pillars, vulgarly called coal-stalks, rising from the seam of coal like trees from the surface of the earth. They have a close resemblance to petrifications; and yet the substance is just freestone similar to that of the surrounding rock. They, in some instances, branch out into regular ramifications at top, as they almost always do at bottom; and these do most strikingly resemble trees of the hawthorn, or elm species. Specimens are very easily met with. In the garden of Colzium, and in the garden belonging to the manse, there are to be seen, brought from the Garrel glen, remarkably good specimens of this curious incrustation or formation: nay, so commonly are they to be met with, that, in several gardens about the village, we find them set up by way of ornament.

For the following very particular and accurate account of the soil, and of the lime and ironstone of the parish, I am indebted to the late Mr John Rennie, farmer at Currymire.

The best of the soil is alluvial, which has been carried down by the mountain stream, (particularly in 1733, as before noticed;) it is incumbent upon moss, mud, or clay; it has been much improved, and is capable of still greater improvement by drainage, which, being encouraged by the proprietor, will make the Vale of Kilsyth

equal to the richest in Scotland. Draining is still in its infancy : its advantages, however, are already seen.

The soil of the parish should be classed into three kinds, besides the hill pasture, viz. 1. The rich alluvial soil lying in the lower part of the strath, interspersed with the moss of Dullatur bog ; red moss and Inchterff moss, which form but a very minute portion of the strath, not exceeding 100 acres, while the rich alluvial part of the strath in the parish is about from 1200 to 1500 acres, or nearly one-third of the arable lands of the parish. 2. The gravelly and sandy strath, running the whole length of the parish, along the edge of the above described rich alluvial soil, and, betwixt that and the higher arable land ; this gravelly sandy strath is bounded on its north edge, by a large dike or break in the strata. 3. The tilly or clayey strath, running along the northern boundary of the gravelly and sandy, and between that and the hill pasture. This is the coal district of the parish, and, of course, the worst and most unproductive land of the parish, comprehending perhaps three-fifths of the arable lands of the whole parish : the soil is tilly, close-bottomed, and not alluminous, consequently very inferior. 4. The hill pasture and grass farms are covered with fine rich pasturage for cattle and sheep, to the summit of the hills.

Lime.—The lime at the west side in the West Barony, deserves the encomium bestowed on it in the last Account. About 1806, the late Mr Neilson became the tenant of all the coal and lime on the estate of Kilsyth, belonging to Sir Charles, now Sir Archibald Edmonston. He extended and improved the lime-workings, and sold during his lifetime, at an average, nearly to the amount of L.2000 yearly, to the surrounding country. At his death (1819), the work began to fall off. At present, there is not one-twentieth part of the quantity sold at these works. The chief reason is, that the present tenant, Mr James Marshall, directs his capital to the coal trade, which is still more important and profitable. The working of lime at Berryhill is entirely abandoned.

There are other posts of limestone in the same line, which have never been wrought, except a small quantity by Mr Bow of Auchinriboch, for his own use. There is another known post of good lime, farther down the hill at Riskend, dipping towards the above lands, never yet wrought. In 1825, the present proprietor of Kilsyth estate caused the mines at Corrie to be opened. As far as could be discovered, the veins had been exhausted. Every mine and shaft was cleared out, which had formerly been opened. From the

analysis made, there is no doubt that copper exists in these veins, but only in small quantity. The heavy spar veins seem to be superficial; and, until more expensive operations are made, it remains uncertain whether there exist any metal of value in this range of hills. It is, however, certain that veins of heavy spar exist, seen at the surface, in various parts of these hills. The blocks of jasper in the Hailstone Burn, above Corrie, are still found, as mentioned in last Account; but nothing has been done to turn them to account.

Ironstone.—The Carron Company have continued to work the ironstone at Banton, to much the same extent as stated in the last Account (about 5000 tons per annum; number of miners betwixt 50 and 60.) The ironstone on Mr Cadell's lands has been almost wrought out. The operations of the Company are now chiefly on their own lands, where they have fourteen different seams or bands of ironstone, wrought at various depths. Some of these seams are not of good quality, and, therefore, are not wrought; others are excellent. They vary in thickness from six to eighteen inches. Besides these, there is a band about thirty fathoms, called the fine stone, which is of superior quality and thickness; little of it, however, can be reached, as it is under water. The same seam of ironstone extends to the lands of Tomphin, where it has never been wrought. Large fields of ironstone are known to exist over the West Barony; but, excepting a partial working of a band or two at West-side, underlying the limestone a few fathoms, none have ever been wrought.

Coals.—Great part of the parish is a coal-field: but it is not of so much value as might be anticipated, from the broken nature of the strata, by dikes and hitches, which are everywhere met with. The principal dike is known to run into the River Forth near Airth, and commences in this parish at Tomphin. This dike varies both in material and thickness. It is, at some places, thirty feet thick, at others double that number of yards. At some places, it consists of the hardest basalts, at others the softest blaes, and at others a mass of freestone debris, or solid freestone, or rotten whinstone, interspersed with round balls, &c. &c. It sends off, and receives many branches in its course within the parish. The seams are various, and of very different quality. The Balcastle coal is admirable, much of the nature of the best English coal. In some pits lately opened near to Chapel-green, the coal was at first of a very inferior quality, but now it is good. The coal in the east is,

though harder, yet valuable, and adapted for the oven and smith's furnace or forge. A great proportion of the coal at Balcastle and in the West Barony generally, is charred, and carried away for furnaces.

Hydrography.—The two rivers which form the boundaries of the parish on the north and south, are the Carron and the Kelvin. The former, as its name imports, is a winding stream, especially so far as it bounds this parish. The bonny links of Carron water are celebrated. For three miles, it runs in a somewhat slow and serpentine course, through an extensive meadow. It is a delightful trouting stream, and is much frequented by anglers, for many miles round.

The Kelvin, taking its rise near the House of Kelvinhead, on the land of Ruchill, in a kind of marsh, descends in a very small rill to the low ground on the south, near to the great canal, where it soon receives an accession from a part of Shawend burn, and, farther west, from the Garrel and Ebroch. It moves slowly through the valley westward, upwards of four miles in this parish. At Inchbelly, where it leaves us, it becomes a beautiful stream; its banks green, smooth, and wooded. Till the year 1792, it was choked up with flags, rushes, and water-lilies, frequently overflowing the adjacent valley, and giving it the appearance of a great lake. The late Sir Archibald Edmonstone, Bart. of Duntreath, grandfather to the present proprietor of the same name, who purchased the estate of Kilsyth in 1784, proprietor of the lands to the north of the Kelvin for about four miles, projected and carried into effect a great improvement, under the inspection, and according to the plan, of Robert Whitworth, engineer,—by straightening, deepening, and embanking, as described in the former Account. The sloping green bank, with its skirting of wood near Inchterff and Inchbelly, was formed under the eye, and at the expense of the late Captain Lennox of Woodhead. It must be acknowledged that the river, so far as this parish can claim it, is the reverse of picturesque, having the appearance of a small canal; but the useful must here be regarded as the beautiful, or, at any rate, as more than an equivalent. As the Kelvin proceeds and approaches Glasgow, it becomes a fine stream; the aqueduct over it, and the dock where the canal branches off to Bowling Bay, have given it a celebrity, of which, at its rise, and while it bounds this parish, it gave no promise. Both our rivers, Carron and Kelvin, are known to song,

but still better known to commerce. Who has not heard of Carron Works and Kelvin Dock?

There are several rivulets and burns in this parish. The most remarkable is the Garrel, as its name denotes, a rough, brawling stream. It rises on the Garrel Hill, one of the Kilsyth range; its whole course, till it runs into the Kelvin, is above three miles. In a mile and a-half it falls 1000 feet, having a great number of cataracts in its course. The narrow chasms worn by its rapid and powerful stream in winter, are singularly romantic, and well repay the fatigue and occasional wetting of the curious visitor. The course or bed of the Garrel burn, below the Garrel Mill, is, for the most part, dry, its waters being carried off to the Townhead Loch, to the east of Colzium, excepting in a spate, when it comes down with great fury. When it arrives at the Burn Green, near the town of Kilsyth, it is joined and replenished by the small burn of Ebroch, which rises at the foot of the Barwood, about one mile east, and then joins the Kelvin, after flowing half a mile in the valley westward.

The whole of the low ground was, at one period, a loch or morass; but now, we have only one, the Townhead Loch, which is chiefly artificial, and a reservoir for supplying the canal. It is of an oval form, full three-quarters of a mile long, and from one-quarter to half a mile broad. It covers seventy-five acres imperial. The country round it, especially on the north, is very rugged and barren. A few firs are planted at the east end, and of late, a considerable plantation of trees has been formed at the west end. The old trees near the house of Mr Marshall of Townhead, with the island near the south-west end, give the whole the semblance of a natural sheet of water of great beauty. The banks have been raised, and the sluices, formerly of mason-work, are now of cast or malleable iron. A couple of swans were, a few years ago, brought to this loch; but they soon became tired of their situation. It abounds in excellent trout. It was originally an extensive hollow, as if scooped out for the purpose. At one place only, was there a deep opening, by filling up which to the height of twenty-five feet, the work was at once completed; and, by leaving a sluice in the centre, it can be filled or emptied at pleasure. The expense was remarkably moderate, in proportion to the extent of surface, and the quantity of water it contains. The whole is finished in an ingenious manner. There are two other mountain-streams worthy of notice in the West Barony, viz. the Quinzie and Nether-

inch burns, which flow from the same fountain at Burnhead, on West-side farm, to the south of the Corrie-hill.

Springs.—There is no district, where there is a greater abundance of springs of wholesome water. Wellshot, opposite Auchinvolle, St Mirron's well, south of Woodend, and Kitty-fristy well, on the hill-road to Stirling, known to all foot-passengers, are powerful springs, of most delicious water. The town is chiefly supplied by conductors from the Barwood, south-east of the town. The mineral spring at Dovecot wood is now scarcely perceptible. There is one in the glen near Garrel mill.

Botany.—Our romantic glens of Garrel, Colzium, Old Place, &c. have not, so far as I know, been minutely explored by the professed botanist. The Campsie glens have been more frequented, being nearer Glasgow, and more easy of access. The sloe, hawthorn, hyacinth, wild-rasp, the elder, the bramble, and the hazel prevail. The scented woodruff is to be found in our rocky glens. Much has been done, of late years, in the planting of trees, which, with inclosures and neat farm-houses, has given quite a new aspect to this parish.

There are a few fine specimens of aged yew trees at Townhead, near the loch, and a very few oaks of no great size. * The plantations at Ruchhill in the East Barony, and in the West Barony near Corrie, Lossit, Old Place, &c. are thriving and beautiful. We cannot boast of fruit trees. It is the early and successful cultivation of the most useful *Solanum tuberosum* (potato,) on which the fame of this parish, in so far as botany is concerned, chiefly depends. "It not only gave birth to the gentleman who first introduced the culture of potatoes into this country, but it was the scene of his earliest experiments." The gentleman referred to was Robert Graham, Esq. of Tamrawer, in the East Barony. It was in the year 1739, that he commenced this work of utility. Before that period, he and others had raised the potato in the garden; but there was a prejudice against raising it in the field. He planted half an acre of ground on the croft of Neilstone, to the north of the town of Kilsyth, where he at that time resided as factor on the estate of Kilsyth. This excited the attention of

* What has been regarded as a great curiosity in natural history, may be here noticed. An ivy of considerable size, growing without support of wall or wood extraneous to itself, doubling, over and over, with a large shrubby head waving in the wind, and braving all weathers, stands near the front of the manse. The solution is, that the offices stood there till 1816, on one end of which the ivy clung. The wall being removed, the ivy supported itself, till last winter, or early in spring, when the high winds were too powerful, and it is now no more.

the neighbourhood, and the practice spread extensively. Some noblemen, as well as farmers and agriculturists, came from a distance, among others the unfortunate Earl of Perth,—to observe the mode of culture, and the success of the experiments. Mr Graham rented lands in the vicinity of Renfrew, Perth, Dundee, Glasgow, and Edinburgh, and for many years obtained premiums for cultivating the potato.

II.—CIVIL HISTORY.

Historical Events.—The most memorable event in the civil history of this parish, doubtless, is the battle of Kilsyth, fought in 1645, betwixt General Baillie and Montrose, and which proved so disastrous to the Covenanters. The site of the battle is not very visible to the eye. It is in the valley, rough and stony, below Riskend farm-house, the greater part covered with the water of the reservoir already described. Every little hill adjacent records something connected with the events of that day, *e. g.* the Bullet-knowe, the Baggage-knowe, the Drum-burn, the Slaughter-howe, &c. On the land of Wester Auchincloach, north-east of Kelvinhead, human bones have been frequently dug up. About twelve years ago, a quantity of human bones, mostly of a small size, were found in a corner of a field, north of Wester Auchincloach. The tradition that the drummers and fifers were buried there, was thus confirmed. In the Dullatur bog, many skeletons and bones have been discovered. The hilt of a sword and part of a saddle, and various coins, have been found in different places.

Livingston, Viscount of Kilsyth, a branch of the Linlithgow family, was at that time, and till the year 1715, the chief proprietor of this parish. There are the ruins of three mansion-houses which were occupied by the chief, or by branches of the family : at Colzium (copper hill) where, in a modern house, near the ruins of the old castle, the present proprietor, Sir Archibald Edmonstone of Duntreath, Bart. resides ; at Dovecotwood, where there is a fragment of a very strong castle in a commanding situation, overlooking the town of Kilsyth ; and in the town of Kilsyth, where there is the latest inhabited of the castles, of date 1655, which is still pretty entire : it was formerly surrounded with gardens and lofty trees, but is now inhabited by many poor families. William Livingstone, Lord Kilsyth, joined the rebels in 1715, and lost at once his property and home. The room and bed-closet are still shown, in which Charles Edward spent a night. The unfortun-

nate laird, after the failure of the Chevalier's enterprize, fled into Flanders, whence he never returned, unless, as is said, in disguise.*

Revivals.—The most interesting event in the religious history of this parish is the Revival of Religion, which took place in the years 1742 and 1743, under the ministry of the Rev. James Robe, A.M. and of which he gives a full and authentic account in his "Narrative." The notice of this event in the former Statistical Account is very full, and, upon the whole, judicious. The writer of this has examined the subject as impartially and fully as he could, and must agree in the views expressed in that article, and also in the observations made regarding it by the late celebrated Sir H. Moncreiff, in his Life of Dr John Erskine.†

* Jean, daughter of William, Lord Cochran, son and heir of William Earl of Dundonald, married first to John Viscount of Dundee, then to the Viscount of Kilsyth, was, with her infant son, smothered or killed in Holland, (1717), by the falling of a roof, either by accident or design,—only two of the whole company escaping, by being seated in a window. (See Dalrymple's Memoirs.) The wound which Lady Kilsyth received was on the right temple. The child seems to have been smothered in the arms of its mother. The bodies were sent over to Scotland, after being embalmed, and were committed to the family vault, in this parish. The space betwixt the leaden and the wooden coffin was filled with a white matter, of the consistency of putty, but of a rich aromatic odour. A few weeks previous to the drawing up of last Statistical Account, some visitors of the vault, students from Glasgow, (the writer of this has a lively remembrance of the scene,) upon lifting the leaden covering, after removing a board of fir, to their great surprise, found the bodies of Lady Kilsyth and her child as entire as at the hour they were entombed. "Every feature," writes Dr Rennie, "and every limb is as full—nay, the very shroud is as clean and fresh, and the ribbons as bright as the day they were lodged in the tomb. The body of her son and only child, the natural heir of the title and estate of Kilsyth, lies at her knee. His features are as composed as if he was only asleep, his colour as fresh, and his flesh as full as if in the perfect glow of health. He seems to have been an infant of three months old. The body of Lady Kilsyth is equally well preserved, and it would not be easy for a stranger to distinguish with his eye, whether she is dead or alive, &c." (Statistical Account.) The coffin was soon closed, and the access to the tomb shut. The bodies soon mouldered away,—showing the vanity of all attempts to arrest the tendency of dust to dust.

In Dr Rennie's account the wound is said to be quite visible in the right temple. A sketch in the writer's possession marks it as on the right cheek. Of this discrepancy, he can give no explanation. A parishioner, who has a distinct recollection of seeing the body, says the wound was quite visible on the right temple, and does not recollect any mark on the cheek.

William, third and last Viscount Kilsyth was attainted after the Rebellion in 1715. The Lady Kilsyth, whose body was found in the church, was his first wife. He was afterwards married to Miss M'Dougal of Mackerston, and died at Rome 1733.—See Douglas's Peerage.

† At the end of the record, ending March 19, 1751, we find the following notice: "The minister read unto them the names of above an hundred persons who were most of them brought under notour spiritual concern in the years 1742 and 1743, and concerning whom he had ground to entertain good hopes. The under subscribing members of the session, elders, and deacons, hereby testify and declare, that all of them who are now alive have been, from year to year, admitted by the kirk-session to the Lord's table since their first admission, either in these fore-mentioned year, or since; and in as far as is known to them, they have had their conversation such as becometh the Gospel; as also, that four or five of the said list, who are now removed by death, behaved, until their said removal, as became good Christians. The

Eminent Men.—Sir William Livingston of Kilsyth was, for his eminence in the knowledge of law, appointed one of the Senators of the College of Justice in 1609, and afterwards chosen

above testimony, written by Ebenezer Paterson, session-clerk, is subscribed, day and date foresaid, by (signed) Elders, Joseph Lapsly, Alex. Patrick, Henry Ewan, James Millar, Deacon, J. Rankine."

March 24, 1751. Sederunt, &c. "The which day the session being met, the list read and subscribed on the 19th current was read before the members present, and the said members then absent did now subscribe the foresaid testimony; viz. Elders, Rob. Graham, Aw. Provan, Henry Marshall, Jas. Zuill; Deacons, D. Auchenvoll, Walter Kirkwood, Wm. and Dav. Shaws, James Ranken, Mark Scot."

In Mr Robe's Narrative, p. 110, there is an important attestation by heritors, elders, and the Bailie of Kilsyth to the very remarkable reformation which had taken place in the lives of the people of this parish, in the year 1742. The venerated Maclaurin, Willison, Hamilton, Bonar, &c. were witnesses of, and sharers in this work; and they gave their solemn approval of the account which was drawn up soon after.

Since this Account was first written, another work of the Spirit of God has occurred among the people of this parish, similar in its nature and results to that which took place in 1742. For some time previous to the period when this work began, there had been a growing solemnity in the minds of the people, and cases of deep concern about salvation occurred from time to time. It was not, however, until Tuesday the 23d July 1839, that that remarkable anxiety showed itself, which soon came to attract universal notice. The sacrament had been dispensed on the 21st of July; and on Tuesday morning, Mr William C. Burns addressed an immense crowd of the people in their working clothes, in the parish church. The text was Psalm cx. 3, "Thy people shall be willing in the day of thy power." The audience were unusually solemnized from the beginning of the service. As it proceeded, many wept silently; and at last, when the preacher, in the view of parting with the people, was exhorting them with unusual solemnity and earnestness to an immediate acceptance of Christ as a saviour, their feelings became so intense, that almost the whole multitude burst simultaneously into a flood of tears, and many began to cry aloud to God for mercy. In consequence of the deep spiritual concern which settled down upon the people from this time, the word of God continued to be preached to crowded audiences, by various ministers, almost every night, for about three months; and, as on occasion of the former revival of religion here, the sacrament was a second time observed in September, when a great many ministers were present, and probably not fewer than 10,000 people assembled, some of them from a great distance, to hear the word of God, which was preached in the church, and in a field near the town. A remarkable degree of the Divine presence was enjoyed by many on this occasion; and, vast as was the multitude congregated, hardly a person could be seen the worse of liquor. This remarkable anxiety gradually subsided, and has not since returned in the same wonderful degree. When I now look back, after the lapse of nearly two years, upon these marvellous scenes, and solemnly consider what has taken place in the light of God's word, I cannot entertain the least doubt that the Lord has been indeed among us, and has left many precious tokens of his presence. It is true that some who once promised well, have sadly disappointed our hopes; and that many who shared for a time in the general anxiety about salvation, have sunk back into their former deadness and impenitence. Still, however, there are, we have reason to hope, not a few who have been savingly turned from sin unto God, while, in other respects, the religious and moral state of the people at large is much improved. The places of worship are better attended, and there is more general seriousness during divine service, than formerly; many family altars have been erected; there is a greater degree of zeal among us for missionary objects; and there are about thirty weekly prayer meetings of a private kind among the people, not including those which are connected with the Dissenting bodies.

I should add, that the new parish at Banton shared largely in this gracious visitation, and that the fruits of it there are not less abundant, in proportion, than among us. Nor has this awakening been at all confined to those who attend the Established Church, in which it first occurred. The work of God has been, I believe, going on in various degrees, from time to time, among all the other denominations,—Relief, Methodists, and Independents.

one of his Majesty's Privy-Council and Vice-Chancellor of Scotland. He died about 1627.

The Rev. Mr John Livingston, justly celebrated for his remarkable success in a sermon preached at Shotts, on Monday after the communion there, about the year 1628, and which gave rise to the practice in the Church of Scotland of observing a day of thanksgiving after the dispensation of the Lord's Supper, was a native of this parish. He was born in 1603, and nearly related to the Viscount of Kilsyth. Livingston was among the most learned and laborious of the brethren, who are justly described as "the band of faithful ministers, who, about the year 1643, were encouraged to take their lot in Ulster in Ireland, and whose labours were remarkably blessed to the converting of many."* They were the founders of the Presbyterian Church in that province, which is now recognized as in communion with the Church of Scotland. Livingston was one of the five eminent men who went to Ireland to aid "the seven brethren, constituting the first band of ministers who laboured with apostolic earnestness to remove the ignorance, formality, and profaneness which characterized the greater part of the early colonists." He was settled at Killinchin, within the diocese of Down, ordained by Rev. William Cunningham of Tullaghfernan, (now Tully), and two or three other ministers,—Mr Andrew Knox, Bishop of Rapho, being present. He was afterwards minister successively of Stranraer, and of Ancrum, in Scotland, and was obliged to flee, in persecuting times, to Holland, where he died. He suffered more than any of the other brethren of that period, for his unshaken attachment and adherence to the Presbyterian cause. His *Life* was originally printed in 4to, in 1727; reprinted in 18mo, 1754.

Sir Archibald Edmonstone of Duntreath, Bart. the chief proprietor here, is the author of a well-written and interesting account of his travels in Egypt.

W. A. Cadell, Esq. of Banton, second proprietor, is the author of two very accurate volumes of travels in Italy.

The present venerable and eminent Professor of Anatomy in the University of Glasgow, Dr James Jeffray, is a native of this parish, and has published a valuable medical work.

Henry Marshall, Esq., Inspector of Hospitals, a native of this parish, is the author of several interesting publications.

* Reid's History of Presbyterianism in Ireland, Vol. i. p. 96.

The Rev. James Robe, A. M., a native of Cumbernauld, and minister here from 1613 to 1755, is the author of the interesting narrative already referred to, and several volumes of sermons.

The Rev. Dr R. Rennie, the author of several essays on Peat-Moss, and possessed of much general information, was a native of this parish, and its minister from 1789 to 1820.

Robert Graham, of Tomraver, has already been mentioned as an eminent agriculturist.

Hugh Baird, Esq., an eminent civil-engineer, resided at Kelvinhead, till his death in 1827. He projected and finished the Union Canal.

Antiquities.—There are remains in this parish, of two Pictish forts, corresponding to the two more conspicuous Roman forts at Westerwood and Bar-hill, viz. Conneypark and Balcastle; the latter very distinct and interesting, being one of the most regular of such forts in Scotland, and rising regularly on all sides at an angle of 45 degrees. The Bar-hill or Castle-hill opposite to it, seems to have been one of the most important forts on the line of the Roman wall, having a commanding view of nearly half its whole length, and overlooking the whole of Strath-Kelvin. It is, besides, at the narrowest part of the valley, so as to prevent the forcing of a passage.

The ruined walls of Colzium Castle remain on a fine elevation above the glen of Colzium. A smaller remnant of another mansion of the Livingstone family, was burnt by Cromwell's soldiers, as they passed to Stirling. There is an old house in the hamlet of Arnbrae, a mile to the westward of Kilsyth, on the north side of the turnpike to Glasgow, in which a room is still shown, where Cromwell slept a night; and part of the table he used, is preserved in the adjoining farm-house.

Lady Kilsyth's vault is now in the open church-yard, covered with three flat stones. On a late occasion of opening the vault, there was found a ring, with the initials, J. C. supposed to signify Jean Cochran, Lady Kilsyth, and a smoking-pipe of earthen-ware.

On the east side of the romantic glen (Garrel), before noticed, there is the Covenanters' Cave, having the date 1669 inscribed on the stone, or arch over it. Nearly adjoining, tradition says the Covenanters had their encampment. The tent of the Marquis of Montrose, on a rising ground above Colzium, mentioned in the former Account as quite visible, is now scarcely discernible.

Landholders.—Sir Archibald Edmonstone of Duntreath, Bart. is by far the largest proprietor. His grandfather, Sir Archibald, purchased the Kilsyth estate in 1784 from the York-Building Company,—Campbell of Shawfield being the tacksman since the forfeiture. He found it in a most neglected state. Few parishes in Scotland have been more remarkably changed to the better, by judicious and spirited improvement. Everywhere, it is now divided with hedge-rows, and provided with excellent farm-steadings. There is still apparent, after all that has been done in the way of plantation, a want of clothing; but, in fact, the hills are too valuable, as sweet pasturage for sheep, to be generally planted.

The valuation of Kilsyth as at present.

1. Sir Archibald Edmonstone, Bart.	-	-	L.2548	6	7	Scots-
2. William A. Cadell, Banton and Ruchill,*	-	-	311	15	10	
3. James Marshall, Esq. of Cunnypark,	-	-	210	0	0	
4. Alexander and John Wilsons, Auchinrivoch,	-	-	170	0	0	
5. Carron Company of Tomraver,	-	-	120	15	10	
6. Thomas Walters of Inchterff,	-	-	117	13	5	
7. Dundaff lands, His Grace Duke of Montrose, &c.†	-	-	80	10	7	
8. John Marshall, Esq. Townhead,	-	-	75	0	0	
9. Old Town of Kilsyth,	-	-	75	0	0	
10. Walter Duncan, Esq. Gateside,	-	-	70	0	0	
11. J. Corbet, Esq. Auchincloch (Wester),	-	-	40	5	8	
12. John Miller, Esq. of Orchard of Auchincloch,	-	-	39	5	3	
13. William Rankine, Esq. of Bogside,	-	-	24	3	3	
14. John Bow, Esq. of Auchinrivoch (Wester),	-	-	20	0	0	
15. Archibald Graham, Esq. of Auchincloch Mill,	-	-	14	1	4	
			L.3916	17	9	

Real rental and present value.

Sir A. Edmonstone's land,	L.6130	0	0	Mr Wilson,	-	L.347	0	0	
Mr Cadell,	-	800	0	0	Mr A. Graham,	-	50	0	0
Duke of Montrose,	-	500	0	0	Mr John Bow,	-	40	0	0
Mr James Marshall,	-	450	0	0	Mr R. Goodwin,	-	50	0	0
Mr Walters,	-	220	0	0	Mr A. Walker,	-	80	0	0
Mr John Marshall,	-	200	0	0	Mr Smart,	-	30	0	0
Mr Duncan,	-	150	0	0	Motherwell's Heirs,	-	20	0	0
Mr Corbet,	-	100	0	0	Kilsyth Feuars,	-	200	0	0
Mr Millar,	-	100	0	0	Carron. Co.'s farms,	-	200	0	0

State of the valued rent of the estate of Kilsyth, subtracting the valued rent of the lands sold, with entry to the purchasers of numbers 1 and 2, at Martinmas 1834, and of numbers 3 and 4 at Martinmas 1835:

* Under Mr Cadell's of Ruchill is included a small part belonging to R. Wilson, being about a fourth of Ruchill, the whole of which is valued at L.30 Scots, so that there are in all, twenty heritors,—the Kilsyth feuars being as one.

† A. Walker of Bentend; J. Smart, Waterside; Robert Goodwin, Slafarquhar; D. Motherwell of Spittle, (his heirs;) rank as heritors, their valuation being included in Dundaff.

East and West Baronies, as before the sales,	L.3116	0	0
Deduct,			
1. Inchsterf, sold to Mr Walters,	L.117	13	5
2. Gateside, sold to Mr Duncan,	70	0	0
3. Cunnypark and Tomphin, Mr Marshall,	210	0	0
4. Auchinrivoch, &c. Messrs Wilson,	170	0	0
		567	13 5
Remaining valued rent in 1836,	L.2548	6	7

Kilsyth Estate.

Scotch acres of arable land from L.1 to L.3 Sterling,	4140
Do. pasture and hill ground about 4s. 6d. per acre,	1850
Do. in plantation,	170
Real rental, L.6130,	
Acres of moss cultivated lately, about	20

The second heritor in extent is William Archibald Cadell, Esq. of Banton. The total extent of the estate of Banton is 655 Scots acres.

Arable land, the rent of which varies from 15s. to L.2, 10s. per acre,	445 Scots acres.
Pasture and hill land,	198
rent of which is from 5s. to L.1,	12
	665
The real land rent is	L.665
Also feu-duties of ground feued,	27
Rent of Sickle-mill and water-power,	28
Minerals and ironstone, about	30
Yearly rental about	L.800

It is impossible to state the quantity of moss ground brought into cultivation, as the system of draining has been going on for a great number of years, and the moss ground so drained has been inclosed along with other ground, without any particular notice.

The ironstone has been, and is still wrought by the Carron Company.

There is also coal on the estate, which is wrought to a very trifling extent, for the purpose of making sickles at the sickle-mill.

The above rents are on an average of two or three years, (date 1837.)

The third heritor is James Marshall of Cunnypark and Tomphin, (who is also tacksman of all the coal and limestone on the Kilsyth estate.) These lands contain about 400 acres. Cunnypark, the most easterly farm, and adjoining to Holland's bush, Denny parish, is a good farm of arable, light land, suitable for barley and green

crop. Tomphin rises above it pretty steep, and is more adapted for grazing than for the plough. The best land lets at about L.2 per acre; the inferior, from 5s. to L.1. Mr Marshall pays L.313 for all the coal and lime on the estate of Sir A. Edmonstone, including the colliery on Cunnypark, called the Steel colliery. Cunnypark and Tomphin are worth about L.450 per annum; and at present are rather highly rented.

The fourth heritor is Alexander Wilson, Esq. residing at Bannockburn, who lately purchased Auchinrivoch, Auchinvalley, and Berryhill, lying north-west of the village of Banton, which contain

	Arable.			Wood.			Houses & Yards.			Roads.			Total.		
	A.	R.	F.	A.	R.	F.	A.	R.	F.	A.	R.	F.	A.	R.	F.
Auchinvalley,	69	1	4	0	0	0	0	2	16	0	1	30	70	1	10
Auchinrivoch,	81	0	33	1	0	0	0	2	22	0	2	10	83	1	25
Berryhill,	135	2	36	3	3	0	1	0	10	0	0	0	140	2	6
													294		
													1		
													1		

The rental of the existing tacks, as stated by Sir Archibald Edmonstone, in the advertisement of sale is, deducting proportion of public burdens,

Auchinvalley,	L.78	10	0
Auchinrivoch and Berryhill,	278	10	0
	L.347	0	0

The fifth heritor is the Carron Company, which holds the estate of Tamraver, anciently Graham's, two farms of good arable land, lying east of Lower Banton, to the north of Kelvinhead and the great canal.

The sixth is Mr Watters, who lately bought Inchterff, the most westerly land in the parish, upon the banks of the Kelvin, bounded by that river on the south, and by Auchinreoch, in Campsie, on the north. This beautiful small property amounts to about 150 acres, all of good ground, with the exception of a portion of the red moss formerly referred to, which is quite worthless, lying in a dead level, and upon a bad kind of clay. Inchterff is almost insulated, as regards the other lands of Kilsyth parish, being within a mile and a half of Kirkintilloch town. Annual rent, L.220.

The seventh heritor is His Grace the Duke of Montrose, who has two excellent grazing farms on the south side of the Carron, being the chief part of Dundaff lands, Burnhouse, and Claharry and Slachristock. Value L. 460 per annum. The first, let to David Ure at L. 150, may keep 15 score of ewes, and 60 black-cattle. The second, let to James Ewing at L. 310, may keep 15 score ewes, and 150 black-cattle.

The eighth heritor is Mr John Marshall, possessor of Townhead, which was bought by the grandfather of the present proprietor, from the Viscount Kilsyth, in 1715. It is finely wooded, and forms a good grass and arable farm. Value L. 200 per annum.

The ninth is the Kilsyth feuars. Value nearly L.200 per annum.

The tenth is Mr Walter Duncan, possessing Gateside, a farm of 70 acres, lying west of Kelvinhead, and rising gently to the north of the great canal; good dry ground, yielding good and early crops of barley, &c. Rent L.120; worth more, say L.150.

The eleventh heritor is Mr Corbet of Wester Auchincloch; a fine farm, with a southern exposure, west of Kelvinhead, and south of the great road from Falkirk to Glasgow. Value L. 100 per annum.

The next is Mr John Miller of Orchard; lying west of, and adjoining to Wester Auchincloch, and of a similar description. Value L. 100.

Besides these, there are the following smaller properties: Auchincloch mill, Mr Archibald Graham; Auchinrivoch, (Wester), Mr J. Bow; and Bogside, Mr William Ranken, lying near the town of Kilsyth, north of the old church, and the present manse. Mr Robert Wilson, tacksman of the Bannock colliery, is proprietor of north Ruchill, being the fourth part of Ruchill, formerly valued at L.30 per annum; the other three parts being now added to Banton estate. There are also three very small heritors, Smart and Motherwell, Waterside of Carron, and R. Goodwin Slafarquhar, in the same locality. Value L.95 per annum.

The residing heritors, are, Sir A. Edmonstone, Bart. of Duntreath, who resides at Colzium; Messrs Miller, Bow, Rankin, Corbet, A. Graham, and John Marshall. James Marshall lives at Auchinsterrie, which ecclesiastically, or by use and wont, is considered as in the parish of Kilsyth.

III.—POPULATION.

Population, as by census 1801,	1762	
1811,	3206	
1821,	4260	
1831,	4297	
No. of families in the parish in 1831,		834
chiefly employed in agriculture,		100
trade, manufactures, and handicraft,		560

Character of the People.—There is among us, as in the generality of such parishes, occasional excess in drinking, and instances of uncleanness and imprudent marriages. We have been also far-famed

for Radicalism; yet there is a strong Conservative spirit, which has been lately increasing. Neglect of religious ordinances, with which too many are chargeable, is generally excused by the alleged and often real want of clothing,—the effect, no doubt, oftentimes of previous improvidence, and the habit of using tobacco and ardent spirits. The want of church accommodation is also complained of. The church attendance, however, is much better now than it was, about sixteen years ago.

IV.—INDUSTRY.

Agriculture.—The agricultural population of the parish are a most industrious, frugal, sober class of people. By far the largest produce of the parish is that of the dairy, to which the rest is subsidiary; and, consequently, the husbandry is what is called the mixed; indeed, no other would suit the soil and the climate. Besides, the large manufacturing village affords abundant consumpt for the produce of the dairy. Butter and butter-milk are the chief produce sold from the dairy. Very little cheese is made beyond what is necessary for the farmer's family use. The dairy cows are all of the Ayrshire breed, and are, through the whole year, very highly kept by turnips, and other produce of the land; sometimes with distillery refuse, draff, &c. all the year round, but chiefly in the winter months. The produce from each cow may average L. 8 per annum.

The stock reared is principally for the purpose of maintaining the stock in the byre, the oldest and least valuable being yearly replaced from the young stock, while those turned out are either already fat, or are sold to be put on grass for that purpose.

At the time of the last Statistical Account, scarcely a single boll of wheat had ever been raised in the parish; but the extraordinary agricultural improvements which soon after took place, introduced very extensively the cultivation of wheat. It was found, however, that wheat was not the crop most productive and profitable; and oats, barley, and green crop are adhered to, as far more profitable in the long run.

Live-Stock.—The following is a state of the stock, and annual value thereof, in the parish of Kilsyth,* at October 1838.

550 milk cows, at L. 8 each,	.	.	.	L.4400	0	0
583 young cattle reared, at L.1, 10s. each,	.	.	.	774	10	0
1618 sheep, at 12s. a head,	.	.	.	964	6	0
200 fat cattle, at L.3 per head.†	.	.	.	600	0	0

* Furnished by Mr John Rennie, at Currymire.

† In the last Statistical Account, 750 is given as the probable number of fat cattle.

30 horses, reared at L.5, ...	L.150	0	0
80 swine, at L.1 per head, ...	80	0	0
159 work horses.			
30 acres wheat, at L.8 per acre, ...	240	0	0
156½ acres barley, at L.8 per do.	1252	0	0
1059 acres oats, at L.6 per do.	6354	0	0
248 acres potatoes, at L.20 per do.	4960	0	0
190½ acres turnips, at L.16 per do.	2092	0	0
256½ ryegrass and clover hay, at L.6 per do.	1587	10	0
246 acres meadow and other hay, at L.3 per do.	738	0	0
	L.24,127	10	0

The above is calculated rather *under* the real value.

Much has been done by the proprietors of the chief estate, in the way of improvement, since the time of last Account. The parish was then comparatively a desert. There were no trees, with the exception of a few about Colzium and Townhead. Now, there are many beautiful belts of planting. The fields are all neatly subdivided into commodious parks, surrounded with hawthorn hedges.

In the year 1803, the proprietor of the Kilsyth estate laid out a very large sum in improvements, farm-houses, &c. The buildings were, in several instances, by far too large and expensive, for the size and value of the farm, so that a great part of the enormous outlay never has, and never will be, returned. The farm of Gaval alone, in the West Barony, had dwelling-house and steadings erected at an expense of L. 4,500. It was then designated Kilsyth Farm, now Gaval House, where the factor resides. Many of the houses now stand in need of considerable repairs.

Liberal encouragement is given to the tenants, in the way of improvements. A tile and brick-work, upon the estate at Currymire, in the East Barony, furnishes the means of drain-making. The tiles are allowed, at a small cost, to the tenants,—besides allowance for liming, when the soil requires it.

V.—PAROCHIAL ECONOMY.

This parish may be said to comprise three of a moderate size and population, viz. the town and suburbs, containing 2900; the East Barony and moorlands, nearly 1000; and the West Barony, about 350. The Railway work is said to have added nearly 500; but these are again departing. The census about to be taken will probably show the population to be still about 4300.

The town lies on the most northerly road from Edinburgh to

This, however, must have been a mistake, as at no period could this parish have furnished the means of feeding to that extent; especially at a time when turnip was scarcely known.

Glasgow, and is nearly equidistant from Glasgow, Stirling, (by the hill road), Falkirk, and Hamilton. It does not seem to be very ancient, yet it has been a post-town ever since the institution of the post establishment. About half a century ago, it was the great thoroughfare betwixt the metropolis and Glasgow. Now, it is rare to see any vehicle on the streets, superior to a cart or the post gig. There is not even one post-chaise, but very comfortable accommodation in the chief inn, for families travelling in their own vehicles.

There are two villages in the East Barony, Banton and Auchinmully, (or Banton Lower,) containing 600 inhabitants, miners, colliers, sickle-makers, &c.

The town of Kilsyth, holding of Sir Archibald Edmonstone, Bart. was erected into a burgh of barony about twelve years ago, having a bailie and four councillors, elected annually, who hold monthly courts for small debts, and petty offences. All the inhabitants and proprietors of houses to the extent of L. 5 rental, who chose to furnish themselves with a burgess-ticket, have a vote in the election.

The trade of Kilsyth is almost entirely hand-loom-weaving, to the order of the Glasgow manufacturers. Two factories have lately been commenced; in the new town of Kilsyth, by Messrs Wilson, and at Quinzie mill, in the West Barony, by Messrs Ross. The latter is a waulking factory; the articles made are whip and lappets, the former used in weaving, the latter for the foreign market. The number of hands at present 23; 16 looms going; the quantity of cloth thrown off about 160 pieces, ten yards in each piece. The work is now enlarged, and eleven more looms fitted up. For six months past, the company have employed a young man, although there is an excellent school at Chapel Green, to teach the children connected with this work, and a few others who choose to avail themselves of the benefit. They employ about 50 hands in town also. Messrs Wilson's factory employs at present 50 weavers, all working coarse lappets, with the exception of nine who are working umbrella-cloth and checked ginghams. Out-door weavers in the town are working fine lappets; they are 66 in number. There are six out-of-door pollicot weavers, which makes in all 122 in this parish. These two companies, though small compared with those in Glasgow, Airdrie, &c. are yet of some importance here; as before their erection, nothing of the kind had been, at least for a long time, attempted,

and the community generally were operatives depending on the great houses in Glasgow.

Our tambourers are, upon the whole, in the most depressed condition at present.

At Upper Banton, in the East Barony, there is a small sickle-work ; a paper-mill at Townhead, Mr Lusk's ; and a brick and tile-work at Currymire ; the two latter are of recent origin.

We have no regular weekly market-day ; nor are our two annual fairs of any moment ;* yet, almost at all seasons, good butcher-meat can be obtained (with the exception of veal), almost as good as in Glasgow or Falkirk, and somewhat cheaper. In this article there has been a very perceptible improvement, during the last fifteen years.

For several years past, there has been a Farmers' Association in this and the neighbouring parishes ; and a large cattle-show, near the chief inn, takes place in the month of June, and is encouraged by the chief proprietor and his factor, James Maclaren, Esq. and by other friends to agricultural improvement, when premiums are awarded for the best specimens of horses, cows, &c. This show has been attended with perceptible benefit.

Forth and Clyde.—The canal is our principal mode of communication with other parts of the country. We have also cheap coaches, three times a-day to Stirling, in connection with the canal barges. The mail-coach was removed from us about ten years ago, and the intercourse with Glasgow and Falkirk is now carried on by a post-gig, carrying one passenger.

Ecclesiastical State.—The present parish church, erected in 1816, is elegant and well-finished. The site of the former church was in the church-yard ; but that of the present is at the west end of the town, adjoining the old house of Kilsyth. It is by far too small for the population, holding only 860. The younger part of families are thus, in a manner, precluded from attending with their parents, and remain at home, or roam through the fields ; and there is afforded too ready an apology to many, for neglecting religious ordinances.

Now, however, a very neat church has been erected at Banton, on the ground of Ruchill, a little to the north of Kelvinhead, which will accommodate upwards of 400, and when a gallery is needed, nearly 600. The means of erecting this church were obtained by subscrip-

* This year the fair has been held on Friday the 9th April, and the change promises to be favourable, as it is a good time for selling milk cows.

tion,* and a grant from the General Assembly's Church Extension Committee. The population adjacent amounts to about 900. A new school and master's house have been erected at the same time. A missionary has been employed since Christmas 1837, who labours during the week among the families of the district. The new church is nearly three miles east from the parish church of Kilsyth, and nearly as far distant from any other place of worship. Yet the population is not such as to afford any reasonable prospect of a sufficient support to a minister. An endowment is, therefore, imperatively called for.†

The manse was built in 1786, for Mr John Telfer, the minister. An addition was made to it, in an early part of Dr Rennie's ministry, of one large room, besides other conveniences; and new and excellent offices were added at a later period (1816). Two years ago, the heritors erected two rooms above the large room referred to, put the whole in a pretty good state of repair, built a handsome porch of freestone, so that it is now a respectable-looking, and commodious dwelling for a family, although the narrowness of the original construction and the steepness of the staircase could not be corrected. The glebe consists of about 10 acres of the best light land in the parish. A great part of it is a very few inches deep, upon a blue whinstone.‡ Till 1800, the glebe was in parcels amounting together to 14 acres, but not lying contiguous. Excambion has improved the benefice. The only inconvenience is, that there is no perennial spring on the glebe. The well, though good water, fails in a sultry season.

The greater part of the teinds was exhausted at the last augmentation in 1822, the stipend was raised to 17 chalders, half meal, half barley, at the highest fiars, with L. 15 communion elements, being about L. 250 a-year at an average. Most of the smaller heritors have surrendered their teinds; which frees them of all trouble from any future augmentation.

* Four subscribers of fifty guineas each to the new church of Banton were, Sir A. Edmonstone, Bart.; W. A. Cadell, Esq. of Banton; Daniel Lusk, Esq. of the paper-mill, Townhead; and William Campbell, Esq. Glasgow.

Since the above was written, Mr J. Lyon was ordained minister of Banton on the 13th February 1840.

† The late Sir Charles Edmonstone, Bart. presented an excellent bell from London to the church of Kilsyth, which unfortunately was broken in the year 1823, it is supposed, from the bellman having made an undue addition to the tongue, with the ambitious design of outpealing the neighbouring bell of Kirkintilloch. The new bell, the production of S. Miller and Co., Glasgow, is a fine silver-toned one.

‡ The greater part of the glebe was lately let at L. 2, 15s. per acre. The park to the south of the manse is the best, and is still retained as pasture by the minister.

Since the year 1768, when the Relief church was built, there have been a considerable number of Dissenters in this parish, chiefly of the Relief persuasion, and of Original Burghers,* and the United Associate Synod: the two last-named going for worship to Cumbernauld. A small body of Methodists have now a chapel; and a small body of Independents occupy the New Mason Lodge. The proportion of Dissenters to those in connection with the church, is nearly a fifth; but there are occasional transitions from the Church to the Relief, and *vice versa*, from various causes, such as discipline, marriages, seats, &c. The Relief church holds about 600; and, as usual, the hearers are from parishes adjacent, as well as from this.

So early as the year 1586 Mr Alexander Livingston, of the family of Callendar, was parson of the original parish of Monaburgh. He was succeeded, in 1599, by his son, William Livingston,—a considerable heritor in the parish. In 1604, he used all his influence to oppose the restoration of the bishops, for which cause, and for his non-submission to the canons and ceremonies, he was deposed, and, by his Majesty's authority, deprived of his ministry. After this, there seems to have been a vacancy for some years. In the year 1615, Mr Archibald Graham was admitted minister. In the year 1636, he was called before the High Commission Court, for neglecting to practise the canons and constitutions; and for this he was deposed. The following year Mr Gabriel Cunningham was admitted, who conformed to Episcopacy after the Restoration. Till about this period, it would seem that the Lord's Supper had not been administered, for it is recorded, that, in the year 1665, communion table-cloths, cups, and tickets were obtained, and a bason for baptism, but no flagons, nor even a church Bible. The people repeated the creed, said the Lord's Prayer, and sung the doxology after the psalms. In the year 1666, Mr James Gärtshore was admitted to the charge. He was translated to Cardross in 1673. Two years after, Mr Walter M'Gill, the last Episcopal clergyman here, was admitted minister, being translated from Wigton. He was a man of uncommon meekness and moderation, and a great favourite of all ranks and denominations of people in the parish; insomuch, that, when it was declared vacant by the Presbytery, in the year 1690, an uproar ensued. The patron and his lady, with a powerful

* Since the union of the Original Burgher congregation with the Establishment, the hearers who used to go out of this parish come to the churches of Kilsyth and of Banton.—1841.

party in the parish, espoused his cause; and, when the Presbytery met at the church, the patron sent down his chamberlain to refuse them admittance, and lock up the doors. The populace even offered violence to the Presbyterian clergyman who was to officiate. A scuffle ensued, in which many were wounded, and one killed. Mr M'Gill's partizans at last prevailed, and the Presbytery were at a loss what steps next to take; but, in February 1691, Mr M'Gill formally gave in his demission. A vacancy ensued for some time; during which period, the Presbytery visited, and ordered repairs on the church, manse, and offices to the amount of L.212, 1s. 4d. Scots.

On the 29th December 1692, Mr James Hay, the first Presbyterian minister, was translated from Kilmalcolm to this parish. During his incumbency, the church received considerable repairs. The roof was renewed, and the north aisle, with the vault or burying-ground under it, was repaired in the year 1697, the parish being assessed L.1266, 13s. 4d. Scots. Mr Hay was fifty-two years of age when he was admitted. In 1710, Mr James Stewart was elected, by unanimous consent of the minister, session, and congregation, to be assistant. In that capacity he officiated till Mr Hay's death, in July following. A vacancy again ensued, the Presbytery for nearly three years supplying the charge once in the fortnight.

The famous Mr J. Robe, son of the Rev. Mr Michael Robe, minister at Cumbernauld, was admitted minister on 24th April 1713.* He received a presentation from the Viscount of Kilsyth, who was so tenacious of his right, that neither he nor his lady would allow a call to be moderated in his favour. The Presbytery, being assured that the presentee was acceptable to the parish, dispensed with the form of a call, and ordained and admitted him. Patronage had been very recently restored by Queen Anne's ministry. It was under Mr Robe's ministry, as already noticed, that the remarkable religious revival took place.

On the 21st March 1754, Mr John Telfer was ordained minister; and he continued so till his death, in March 1789. It was during his ministry, that the Relief secession took place. Mr Telfer had given offence to his session, and many of his people, by countenancing, by his presence, the unpopular settlement of a minister

* It is not at all likely that any formal deed of presentation was either offered or accepted; but the fact only is certain, that, after a three years vacancy, Mr Robe was amicably settled.

at Eaglesham. He was frequently assisted, in his latter days, by Mr William Bow, a probationer in the neighbourhood. In September 1789, Robert Rennie, D. D., a native of the parish, was ordained and admitted minister. He died on the 10th of July 1820. The present incumbent (ordained by the Presbytery of Brechin as minister of Dun, on the 4th December 1800,) was admitted here on the 19th April 1821.

The Crown has been patron since the forfeiture in 1716; and the settlements have always been harmonious.

Eldership.—The parish has long been divided into sixteen parts, over each of which an elder, who is at the same time deacon, presides. Most of the elders are attentive to the spiritual as well as the temporal affairs of their district or quarter, and are often found praying with the afflicted.

Schools.—There are three parochial schools, one in the town; another at Chapel-green, in the West Barony; the third at Banton, in the east. The teacher in the town, considered as properly the parochial schoolmaster, has a salary of L. 30, and acts as session-clerk. The East Barony teacher has L. 12, 6s. 3d.; the west L. 9. This last, commonly called Chapel-green school, has the benefit of a mortification by Mr John Patrick, (a native), merchant in London, whose legacy of L. 60, placed under the management of the session and Presbytery, in the year 1723, having been invested in land, now yields L. 22 per annum to the teacher, who is bound to teach poor scholars in the barony.* Few, however, come under that description. There is also a good house and school-room, built by the liberality of the late Sir Charles Edmonstone, Bart. of Duntreath, and some others. Sabbath-schools have been established for a quarter of a century, and have been highly useful. One great deduction from their efficiency, doubtless, is their not being on the local system; the consequence of which is, that many of those children who stand most in need of being instructed, are not found in attendance. Of late, several pious individuals are using their endeavours to collect neglected children round their own doors, and give them instructions along with their own children, in numbers from eight to twelve each.

* In 1745, this sum of L. 60, with part of the money belonging to the session, which had been lent to the Laird of Gartshore at five per cent. was laid out on the small *mealen* of Culmuir, being part of the said Gartshore lands; and in the year 1823, a century after the mortification, Culmuir was sold to the present proprietor of said lands, the part belonging to the school having increased in value to L. 550, which at present yields L. 22 per annum. As to the portion appertaining to the session, it was soon spent for the good of the poor parishioners.

The small collections at the evening exercise, lately begun in the winter season in church, are applied towards furnishing such children with Bibles or Testaments. At Banton the school and schoolmaster's house have been rebuilt by subscription. They are very substantial and commodious. In the immediate vicinity of the town of Kilsyth, a new school and schoolmaster's house have been erected, on a handsome and commodious plan,—Sir Archibald Edmonstone, Bart. having liberally given the ground, and the rest of the heritors paying their proportion of the expense of the building. A good many children are taught gratis, the heritors and session, at the recommendation of the minister and session, paying the teacher a modified payment for a considerable number of children of poor or dissipated parents. Notwithstanding of this liberality, too many are very imperfectly taught; the poverty, or shameful recklessness of the parents tempting them to apprentice the poor children at the early ages of eight, nine, and ten! In this case, the children are apt to lose soon the little they have learnt. In some cases; they attend an evening school by way of redeeming time; but this is a very partial remedy, and often not improved.

The intellectual system of mental and moral tuition has been practised here, for eight or ten years past, with considerable spirit and success.

There are usually, in the town, two schools on the teachers' own adventure. One of these, in connection with the Relief, has, for two years, had a kind of endowment from a wealthy member of that body,—the teacher being bound to give schooling to the poor of the Relief persuasion, either gratis, or for a small payment. In the East Barony, there is a female teacher, who has generally about forty scholars, whom she is very assiduous and successful in instructing.

Nearly 500 scholars are in regular course of instruction at the schools of this parish. The week-day evening classes succeed well. In the parochial school in the town, there are 11 Latin scholars, 2 Greek, and 5 French.

Savings Bank.—A savings bank was opened in September 1829: and the following statement will show what measure of success has attended it.

Received to 11th August 1830,	.	L. 128	14	10	and disbursed	L. 19	1	7
Do. do. 1831,	.	183	16	8	do.	84	15	8
Do. do. 1832,	.	180	16	8½	do.	69	13	0
Do. do. 1833,	.	268	16	5	do.	236	14	4
Do. do. 1834,	.	476	5	10	do.	216	14	7
Do. do. 1835,	.	633	4	8	do.	221	18	6
Do. do. 1836,	.	665	1	10	do.	371	18	11½
Do. do. 1837,	.	645	1	5	do.	457	1	1

There are, of female depositors in the savings' bank, 85 consisting of servants, weavers, and tambourers; and a few who come under no particular designation, &c. There are, of male depositors, 65, consisting of weavers, (about 30), servants, labourers, masons, wrights, and other trades. The remainder is composed of retired and professional men. There are 39 boys and girls.

The number of sums below L.4 Sterling is, by the balance sheet of August 1837, 55; above L.4 and below L.7, 37; and from L.7 to L.10, 96. The stock at 31st January 1838, was L.1621, 11s. 3d. Sterling.

Friendly Societies.—Friendly societies have long been known here, and, with the exception of one or two failures from wrong calculation, have done much good. The Benevolent Society was instituted in 1796. The number of members has, for many years, varied from 100 to 130. The highest rate of aliment is 5s. per week; and L.3 is paid to the widow of a member deceased. The annual contribution is 6s. The funds of the society amount to above L.260. The average sum paid to members for the last eight years, is about L.40 per annum. Upwards of L.600 have been expended in supporting the members, since its commencement. The Benefit Union has been for nine years in a prosperous state. It was instituted in the year 1828, and its laws brought under the Acts of Parliament in 1834. The number of its members is at present, 200. The funds, L.170. At the age of twenty-one years, the payment of 5s. annually entitles the members to receive 5s. weekly, when confined to bed; and 3s. weekly, when laid aside from work, but not bedfast. These are valuable societies; and it must be confessed that our people seem to be more fully alive to their utility than to that of the savings' bank, which has not realized the amount of good anticipated. There is one society among the miners in Banton, which has not done so well, from the bad custom of the members meeting in a public-house, and indulging in spirituous liquors. This practice, however, has now been corrected.

Libraries.—A reading Society has long been in existence. The Sabbath School Society has a library adapted to the young. In the two Baronies, two years ago, libraries were formed, the Irish Cheap Library, commonly called the Kildare Library, of 79 volumes, forming the nucleus. They are supported by donations and subscriptions of small sums and regular contributions of 3d. per quarter. A considerable collection of excellent books has been lately presented to the parish.

Temperance Societies.—The writer of this article, after much deliberation, saw it to be his duty to form one of these associations in 1829, at the same time with the savings bank, to which it was well fitted to be, and to which it has been, a useful auxiliary. Much good has been done. But the lamentable fact, that there are not fewer than 22 houses or shops licensed to sell ale and spirits, to a population of less than 3000, shows that the vice of intemperance still prevails to a woful extent. The quarriers and colliers, with a few very honourable exceptions, continue fearfully addicted to drinking spirits, especially on pay-nights, and when there is any cessation from working. Females as well as men are much addicted to this ruinous vice.

Poor and Parochial Provision.—Until the year 1811, the interest of a fund of nearly L. 300, and the weekly collections and small dues, as mortcloth, &c. were found, in ordinary times, sufficient to supply the necessities of the poor; but since that period, it has been found necessary to combine the system of partial assessment with weekly collections. The landed proprietors meet regularly twice a year with the session, and, after examining the lists of the poor, and correcting the lists as circumstances require, agree to stent themselves for such sum as may be necessary to meet the expenditure of the coming season. The tenants and householders are not assessed, but are encouraged to give their contributions at the church door. Besides this systematic plan of supplying the weekly and occasional poor, private beneficence is exercised, and it is pleasant to notice, that, in cases of extreme and unexpected distress, it is usual for kind neighbours to go round, and to collect for the relief of the sufferers.

The weekly list of poor contains about 60, chiefly aged widows; the occasional poor are about the same number. The heritors very liberally allow surgical aid in certain cases; and this is a regular item of their annual accounts. This parish has been more than usually burdened with cases of poor lunatics, deaf and dumb, and orphans. An accumulation of such cases in 1811, with the low state of trade, caused the introduction of the mode of partial assessment: nor does there seem any possibility of avoiding it. Were all the proprietors residing constantly, and attending the ordinances of religion in the Established Church, the assessment could at once be dispensed with; but otherwise, the thing is quite out of the question. Neither do we find that the mode we follow, has the effect of bringing into desuetude private benevolence. Had we

no such regular mode of supply, our elders and deacons would have to become beggars general for the poor of their respective quarters. The collection, exclusive of extraordinary days, brings from 12s. to 15s. weekly. The Banton church has a collection every six weeks, for the poor of the district, by consent of the managers, without any order from the heritors.

Collections and subscriptions for religious purposes are made regularly for the schemes of the General Assembly,—besides occasional collections for the Scottish Missionary, the Glasgow Bible Society, &c. The average amount of such collections is from L. 4 to L. 5. It is but justice to record, that the contributions to the new church and school of Banton, and the liberal donation of the chief proprietor to the building of the new school in the town, will amount in all to nearly L. 1000. In the two former of these works, we have no doubt been indebted to the kindness of various friends at a distance, who also aid us in supporting the minister, who was ordained in 1840, and has a bond for L. 80. The want of an endowment is much felt.

MISCELLANEOUS OBSERVATIONS.

Since the date of the last Account, several of the disadvantages therein referred to have been removed. 1. The principal heritor now generally resides in the parish, though he has been two years absent in England: and the residence of such a landlord is a mighty blessing to the poor. 2. The parish has now, what it had not then, Justices of the Peace,—Sir A. Edmonstone, and his factor; also a bailie and council. 3. The communication with Glasgow, and Falkirk, and Stirling is now very cheap and easy, at all seasons when the canal is open. Ere long, the proposed railway betwixt Glasgow and Edinburgh, may come within one mile of this parish. Gas has been introduced into our shops and places of worship. The church has been heated with stoves. The streets have been very much improved of late by levelling, removal of out-stairs, and nuisances. With such a command of water as we possess, and other advantages, it is rather surprising that we have no great public work of any kind. The consolation here is, that morals might not be improved by such erections and the consequent immigration.

Revised and completed April 1841.

PARISH OF BALDERNOCK.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. JOHN POLLOCK, MINISTER. *

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, &c.—THE name is obviously of Celtic origin, and is supposed to be a corruption of Baldrinick, signifying Druid's-town,—a supposition which some Druidical remains in the parish render highly probable. History, so far back as the thirteenth century, mentions the Galbraiths of Bathernock, a barony in the neighbourhood, and seemingly a corruption of the original name; which family, ending in an heiress, the estate, about the beginning of the fourteenth century, passed by marriage to David, son of Lord Hamilton, and ancestor of the late Dr Francis Hamilton. Since that time, the proprietors have taken the title of Bardowie, from their residence in the parish. When the name Baldernock was given, is uncertain; but the original boundaries were very small, till the year 1649, when the eastern half of the parish, disjoined from Campsie, was annexed *quoad sacra* to Baldernock. The greatest length of the parish is four miles; breadth, three miles.

Boundaries, &c.—In shape, it is a very irregular, three-sided figure; bounded on the west side, by East Kilpatrick and Strathblane; on the south, by the rivers Allander and Kelvin, which, here running in different directions, the former east, the latter west, meet and blend on the lower part of the southern border of the parish, separating it from Cadder. On the side fronting north and east, it is bounded by Campsie. Few parishes exhibit a surface or soil so exceedingly diversified. It consists of three very different stages, rising from the river Kelvin on the south towards Campsie; north, tapering at the east; and widening towards the west. The first stage contains 700 or 800 acres of rich flat dark-brown loam, seemingly a deposition of vegetable mould from the higher ground, and running alongside of the Kelvin. These grounds are

* Drawn up by the Rev. D. Macintyre, A. M. Parochial Teacher, during the incumbency of the late Mr M'Ewen.

commonly known by the name of the Balmore Haughs, most of which are possessed by proprietors whose ancestors, in feudal times, and at a very moderate rent, feued from the House of Montrose, and resided in Balmore, but who are now, in more peaceful times, scattered along the property. The second stage gradually ascends towards the north, and is pleasantly diversified by gently swelling knolls. It contains more acres than the first, and is clay soil over till, which, being mixed with heavy clay and stones, is hard and retentive of moisture. The third, or highest stage, is at bottom a light sharp soil over whin-rock, with a few patches of croft and moss land, but towards the height is moorish ground, rising more than 300 feet above the level of the sea,—whence there is a commanding prospect in all directions, especially towards the south.

The whole of the parish has a southern exposure, sloping from north to south. Its climate is exceedingly salubrious, its inhabitants free from disease, and many of them long-lived,—the united ages of fourteen of them amounting to 1150 years.

Mineralogy.—The minerals are coal, lime, ironstone, of various kinds, fire-clay, pyrites, and alum-ore. The different strata of these, when undisturbed by incidental troubles, follow, at a certain angle, the general elevation of the surface, with a dip to the south or south-east, towards the bed of the Kelvin. Towards the north-west and higher grounds, these strata are cut off by the primitive rock, but, towards the east, they join and form a continuation of the extensive coal-fields of Campsie. The general thickness of the coal and lime, wrought here for more than 150 years, is between 3 and 4 feet, and commonly found from 12 to 24 feet beneath the surface, covered with a mass of argillaceous slate traversed by bands of ironstone, and immediately above the lime by a stratum of calcareous freestone, which is a roof to the mines. Till lately, the ironstone principally wrought was the common argillaceous kind, found in layers of from 3 to 7 inches thick; but lately, there has been discovered in the coal mines of Barraston, the property of Robert Hendry, Esq. a more valuable species of iron-ore, long considered peculiar to the mines near Airdrie, where it was first discovered by the ingenious Mr Mushet about thirty years ago, and proves to be a combination of iron with carbonaceous matter, but richer in metal than any ore yet analyzed in this part of the island. The fire-clay is found in a bed of from 8 to 10 feet thick, and, for many years, has been manufactured into bricks of a very superior quality, in resisting the action of the fire. The local

mines afford an inexhaustible supply of pyrites and alum-ore, which has induced the Hurler and Campsie Alum Company to establish here a copperas work, as a branch of their extensive manufacture.

II.—CIVIL HISTORY.

The proprietors are numerous, and the soil has often changed its landlord. The principal heritors at present are, Messrs Glassford of Dougalston; Hamilton of Bardowie; Marshall of Lavrockhill; Stirling of Keir; Gray of Glenorchard; Lennox of Woodhead; Hendry of Barraston; Gordon of Craigmaddie, &c. &c.

Parochial Registers.—The records of session bear date 1690. They have been very irregularly kept.

Antiquities.—On the heights of the parish, and towards the north-west, the ruins of a tower of unknown size and antiquity, and once the mansion-house of the Galbraiths of Bathernock, lie behind Craigmaddie, the seat of H. Gordon, Esq. On the farm of Blochairn, are several oblong and circular cairns, memorials of ancient feuds, where, tradition says, in a battle with the Danes, one of their princes was slain. These cairns consist of heaps of loose stones thrown on a circumference, sometimes of eighty yards, beneath which are parallel rows of flags upon edge, three or four feet wide, and divided into cells, six or seven feet long, lidded with flags; and some of them contain, when opened, large coarse urns, with pieces of human bones. Near this, a mile north from the church, on the same property, are the Auldwives' Lifts, consisting of three stones of similar size, standing on a flat of about 100 paces in diameter, surrounded by an amphitheatre a few yards in height. The two under stones are of a prismatic form, placed along, close by each other, on the earth. The third, probably at first a regular parallelopiped, and still approaching that figure, is placed on the top of the other two, and is eight feet long, eleven broad, six deep, lying nearly horizontally with a small dip to the north. On a sequestered eminence, once surrounded by a grove of oaks, the stumps of which are still visible, these stones are said to resemble, in figure and position, other Druidical monuments, and their name to correspond with that of the Lifted Stone in Ireland, mentioned by Camden, and those in Poitiers in France called *pierres levées*.

III.—POPULATION.

The population has, for some time, been decreasing, and is still on the decline.

two years. Draining is a good deal practised, especially where the proprietor occupies the land. In this, a few spirited landlords assist their tenants; and the drains are generally deep narrow casts filled with stones, and running into a main drain substantially built. Still much remains to be done in this way.

Leases.—Leases are generally for nineteen years, and are considered favourable for the farmer. The common Scotch iron plough is used; but frequent cropping, and fine, not deep, furrows, render it highly probable, that the old custom of having three or four horses yoked in the plough, instead of two, will be adopted, especially in the upper and tilly parts of the parish, as the crops are by no means so heavy as in former years. In the lower grounds, less manure and labour are necessary. Great crops are there always certain, and fallow has been known to produce twenty bolls of wheat per acre. Before the embankment of the Kelvin, all this was greatly counterbalanced by inundations, the flood-mark in the Balmore Haughs being 245 acres; but this is now greatly remedied by a substantial embankment and a tunnel on the mouth of a small rivulet running into the Kelvin from the heights, and, like the Kelvin, during very heavy and constant rains, or a rapid thaw, descending with great impetuosity, and occasioning great damage to the banks, or often breaking them. Ploughing begins early in February, and a Ploughing Society, instituted some years ago, has produced some good effects from competition. Upon the whole, however, the condition of farmers and their farms is worse than it was fifteen years ago; since which time farming has gradually deteriorated.

V.—PAROCHIAL ECONOMY.

Glasgow, the nearest market-town, is seven or eight miles distant, from and to which, there is neither coach, post, nor carrier, which is against the diffusion of useful knowledge and information: letters, books, newspapers, and other communications being either not received at all, or read at an immense trouble and expense. A new line of road, leading from the Balfron line to Glasgow, through the west end of the parish, has long been talked of, is surveyed, and is soon likely to be formed.

There will then be two good turnpike roads, one running the length of the parish from west to east, the other the breadth of it, leading from Balfron road north, to Allander toll south-west, and thence to Glasgow. Owing to the diversified surface of the parish, many other roads are necessary, so many that it is impos-

sible, by the conversion of the statute labour money, to keep them in repair.

Ecclesiastical State.—The church, built in 1795, for 406 sitters, and still in good repair, is by no means conveniently situated, standing in the north-west part of the parish, a mile and a half from the centre. This is also the most thinly populated quarter, and about three miles distant from some of the parishioners. The living is 63 bolls of oat-meal, L.33 in money, the Government bounty,—a manse, built in 1803, substantial and in good repair, 11 acres of glebe, and $7\frac{1}{2}$ of these arable. The present incumbent, the Rev. John Pollock, was admitted in 1838. His predecessors were, the Rev. H. Moncreiff, admitted 1836; Rev. J. M'Ewen, 1804; Rev. Dr Cooper, admitted 1783; the Rev. Messrs Taylor, Carrick, Colquhoun, and Wallace, who was admitted at the Revolution, 1688. 72 families, 240 persons of all ages; 174 Communicants, belong to the Established Church; 39 families to Dissenters. There are 3 Episcopalians, 8 Catholics, and 30 families, that go to no place of worship.

Education.—The parish schoolmaster has the legal accommodation, and the maximum salary. The school is sufficiently commodious, and within reach of the whole parish, being a mile nearer the centre than the church; but the ill repair and dangerous state of some of the roads, render it unavailable to many. Reading, writing, and a little arithmetic, constitute the whole of the education of the people. Most of the children get little time even for these, and there is no great desire for more. The average number of scholars is 50.

The parish contributed L.50 to the Lunatic Asylum in 1813, and previously to the Infirmary of Glasgow, to which they have the common right. The Baldernock Humane Friendly Society was instituted in 1783; approved of by an extraordinary general meeting, March 28, 1809; confirmed according to Act of Parliament, and has a stock of L.500. Late decisions, finding members liable for life, and compelling some, who had withdrawn, to pay up accounts, while they have retained many members contrary to their own inclination, have induced others to keep back; and entrance to the society is now rare. This society has been a blessing to many, and, were it encouraged, would continue to be much more so than it is.

Poor.—The poor's roll has, for some time, been on the increase. The average number of paupers, for the last three years,

has been 16; average sum to each, L. 4 per annum. The funds are, L. 20 per annum, being interest on bond of L. 500, accumulated by donations and savings, and average collections per annum, L. 16, 10s. 9d.; annual expense, L. 64; annual income, L. 36, 10s. deficiency, L. 27, 9s. 3d.

Fairs.—Bardowie fair is held 6th June, for sale of milk cows, and showing stallions. It is the only parish fair, and it has almost dwindled to a shadow.

Ale-houses.—There are seven ale-houses in the parish, and a distillery erected some years ago.

Fuel.—Fuel is supplied from the coalworks in the parish, with a very few exceptions, where it is got from the neighbourhood of Glasgow by the Canal.

February 1841.

PARISH OF ALVA.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. ANDREW BROWN, MINISTER. *

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name of this parish in ancient records is written Alueth, Alvath, or Alveth: this last mode of spelling is to be seen upon a tomb-stone in the church yard, dated A. D. 1632. The word is doubtless of Gaelic origin, and is probably from Ailbheach, *rocky*, an epithet very characteristic of the hills around. The present spelling, Alva, has been in use since the beginning of last century.

Situation, Boundaries, Extent, &c.—This barony or parish belonged, in ancient times, to Clackmannanshire; but since the beginning of the seventeenth century, has been attached to Stirlingshire, although upwards of four miles distant from the nearest point of the latter county. Since the passing of the Reform Bill, Alva has been politically incorporated with Clackmannan, but is still absurdly connected with the county of Stirling, for judicial purposes. It is surrounded, on all sides, by the shire of Clackmannan, except on the north, where it is bounded by a part of Perthshire. Tillicoultry

* Drawn up by J. B. Thomson, Surgeon.

is the adjacent parish on the east, Logie on the west, Blackford on the north; and the river Devon, forming the southern boundary of Alva, divides it from the parishes of Alloa and Clackmannan. The lands of Alva extend over a very considerable portion of that fine range of hills distinguished by the name of Ochils; and the remaining grounds stretch over part of the valley lying at their base, and watered by the river Devon. From east to west, the parish measures somewhat beyond two miles and a-half, and from north to south betwixt four and five miles.

The Alva hills are, beyond comparison, the grandest of the whole Ochil range. They are not so rugged and inaccessible as those immediately to the west in the parish of Logie, but they present a bolder and more majestic outline, while, in luxuriance and beauty, they excel all around them. Bencloch or Bencleugh, the highest of the Ochils, is situated at the north-east extremity of the parish, and extends partly into Tillicoultry, reaching the height of 2420 feet above the level of the Devon. The view from the summit of Bencloch is most extensive and beautiful, comprehending the whole picturesque range of the Grampians, part of thirteen counties, and several towns.

The Devon, a river of small size, but of surpassing beauty, has its source among these hills, in the parish of Blackford, Perthshire. This river, according to the industrious Chalmers, was formerly called Dovan, and is so written in a charter granted by Robert III. to the burgh of Inverkeithing. The Devon flows, at first, almost due east from its source towards Glendevon, lying in the centre of the Ochils. At the village called Crook of Devon, and near the church of Fossaway, it makes a sudden turn westward, and, passing through the parishes of Muckhart, Dollar, and Tillicoultry, gently glides along the southern boundary of Alva parish. The romantic waterfalls and exquisite scenery of this little river, have long been attractions to the lovers of nature. The most interesting part is its wonderful passage through arching rocks, where the hoarse music of waters has acquired for this *lucus naturæ*, the epithet of Rumbling Bridge; or where, a little further on, amid a series of cascades, we find the water producing the curious excavation of that never empty boiler, the Cauldron Linn. Nor can the passing traveller fail to admire also the wanderings of this stream, after it descends into the valley east of Dollar, whence, gliding in a serpentine course, and in a deep bed with little fall, it proceeds towards the Forth. It is singular that the

Devon, after having performed a circuitous route of about thirty miles, should finish its course, nearly opposite the point at which it first arose, reaching the Forth exactly where the latter assumes the character of a frith, two miles above Alloa.

Through each of the glens which divide the Alva hills, streamlets, diversified by small waterfalls, descend towards the valley. The most interesting of these is called Alva burn, a rivulet of excellent water, which, over abrupt and precipitous rocks, forces its passage, and falling in three beautiful cascades, seeks repose where the ground becomes soft and level, in a capacious linn. Separating the West from the Middlehill, this streamlet adds to the beauty of a romantic glen, from which, issuing at the foot of the hills, it runs along the eastern side of the village. A fine plantation of forest trees grows on the steep bank to the east, affording shelter from the north-east winds, so violent in this neighbourhood. The Alva, or Strude glen, as it is generally called, was opened up by its late proprietor, James Raymond Johnstone, Esq. who had part of the rock blasted to excavate a walk through the romantic crags. The path conducts to a waterfall about 30 feet high, above which is an excavation or hole in the rock, worn during the lapse of ages, of which there is a tradition that it once afforded refuge to an outlaw. Farther back in the hill, and inaccessible to all but the adventurous, is another arch of rocks over a waterfall, which is the most singular and wild scene among the Ochils. The water of the stream not only contributes much to ornament the landscape, but also affords a powerful arm to industry, by turning machinery in the village. Where the water finds repose in a large linn, a dam has been constructed at much labour and expense, for retaining a collection against times of summer drought and scarcity. Water-troughs or boxes for conveying the water to the mills, run along the side of the walk, forming as it were a barricade from the precipitous depths of the ravine. Here we have a splendid example of man's power to control nature, and subject her to the dominion of his rational faculties. This little mountain-torrent, which for many centuries had rolled on, unheeded and unheard, "singing to itself its own quiet tune," amid the lone and unbreathing solitude of the Ochils, and which perchance only drew the eye of the passing traveller by its beauty,—now turns the busy wheels of commerce, and not only dispenses life to the vegetable world, but to man himself throughout a flourishing district of country.

Climate, &c.—The climate in this district is mild, but variable. Snow seldom lies for any length of time among these hills. It is remarkable, however, that at the bottom of a ridge of rock, near to the summit of Bencloch, where it is sheltered from every wind, snow is frequently seen in the month of June. From the singular appearance of the narrow and extended sheet of snow, it has received the fanciful name of *Lady Alva's Web*.

Geology, Mineralogy, &c.—These hills are all of the secondary trap formation. The onyx and other pebbles have long been known and worked into ornaments, and the *Ochil Eye* pebble is peculiar to this range of hills. They are found in stony crevices, and the best specimens of the Perth lapidaries come from this quarter. Heavy spar is also found in one of the glens; and that part of the Ochils contained in the neighbouring parishes of Logie on the west, and Tillicoultry and Dollar on the east, as well as Alva, are known to have rich veins of copper, lead, and iron; although further investigation is required to ascertain their value. But that for which the hills of Alva are particularly distinguished, is the valuable veins of silver glance they are known to possess. About the years 1710 to 1715, Sir John Erskine, by means of miners from Leadhills, discovered a very valuable vein of silver, in the glen that separates the Middlehill from the Woodhill. Its first appearance was in small strings of silver ore, which being followed, led to a large mass, part having the character of malleable silver, and found upon trial to produce as much as twelve ounces of silver from fourteen ounces of ore. A sum not greater than from L.40 to L.50 had been expended, when this discovery was made. During the space of thirteen or fourteen weeks, it has been credibly affirmed, that the value produced was L.4000 per week; and it has been alleged that Sir John drew from L.40,000 to L.50,000, exclusive of ore which was supposed to have been purloined to considerable amount by the workmen. Very soon, however, the silver ore began to appear in smaller quantities, and symptoms of lead and baser metals being present, farther researches were laid aside for the time. The specimens of silver glance then found are rich and beautiful, and the pure virgin silver is observed to adhere in slender strings to the spar, with a variety of fanciful and irregular forms. In the year 1767, Lord Alva, nephew to Sir John Erskine, caused a pair of communion cups to be made for the use of the church of Alva, from some of the remains of that ore in his possession. On these the following in-

scription is engraven, "Sacris in Ecclesia S. Servani, apud Alveth, A. D. 1767, ex argento indigena, D. D. C. q. Jacobus Erskine."

About the year 1759, Charles Erskine, Lord Justice-Clerk, father of Lord Alva, having, a few years before, purchased this barony from his nephew, Sir Henry Erskine, revived the working of the mines. A company, consisting of kinsmen and friends of the family, subscribed a moderate capital, and carried on this work with considerable industry. They pursued the course of the vein, where the silver ore had been found, a great way beyond the old workings, but without success. Although occasional small strings of metal appeared, there was nothing important enough to encourage or reward their exertions. A shaft or sump, as miners term it, was made to the depth of several fathoms, immediately below the bottom of the waste from whence the former rich mass was taken, and a drift carried on in the direction of the silver vein upon that level; but this also failed to accomplish the object. To facilitate these operations, however, it had been resolved to drive a level at a considerable distance nearer the bottom of the hill, for the purpose of draining the water from the works above. In executing this part of the scheme, the workmen had not advanced far into the side of the hill, when a large mass of ore was discovered. This, at first, they thought silver, but upon chemical examination it was found to be cobalt. A large quantity of this was brought out, and a great part of it used in the manufacture of porcelain, at this time begun in Prestonpans in East Lothian. The beautiful deep blue prepared from cobalt, was used to colour china and glass, and showed no inferiority to that procured from the mines of Saxony. A quantity of cobalt was afterwards found among the rubbish dug from the mines fifty years before, which Lord Alva caused to be washed after the manner practised by miners, and obtained an additional quantity. The work was carried on to a great length from where the mass of cobalt was got; but spar and other vein stuff appearing, the enterprise was again abandoned. During the time these works were carried on, a very accurate survey of all the different veins of metals discovered in the hills of Alva, was made by the agent for the Company, who possessed considerable skill in the practical art of mining. The several appearances and qualities of the different ores, together with the precise directions of the veins, and other circumstances elucidated, were all accurately taken down by the agent in a register or journal, now in the possession of James

Johnstone, Esq. present proprietor of this barony. From these registers, it appears there are not fewer than fourteen or fifteen veins among the Alva hills, which, from the trials made, contain ores of silver, lead, copper, iron, and cobalt.

Coal, &c.—On the south bank of the Devon, immediately opposite the lands of Alva, it is well known that the finest coal in this country is procured, belonging to the Earls of Mar and Mansfield. The same seams of coal, extending to the north bank of the Devon, on the estate of Alva, were worked about a century ago, by Sir John Erskine, with considerable advantage, and the pits and other vestiges of this work are still to be seen. With a noble spirit of enterprize, that gentleman projected a canal to run along the banks of the Devon, and convey his coal to the Forth, from thence to be exported to a proper market. About sixty years since, accurate surveys of the Devon were made, as high as the parish of Dollar, with a view to facilitate the transporting of coal belonging to the different proprietors on either bank of the river, by means of a canal; but this intention was not carried forward. It is evident, from the smooth and gentle current of the stream in many places, that one entire canal might be unnecessary. It was generally believed that the coal seam here extended from one extremity of the parish to the other, but recent attempts in the west and south-west parts, carried on under the superintendence of a scientific gentleman, proved unsuccessful. Still, there can be little doubt of the existence of coal, where it was sought for, although it dips far below the surface. Indeed, this parish is part of the great coal field of Scotland, which crosses the island diagonally from east to west. Bounded on the north by the river Eden, near St Andrews, it goes to the south parts of Kinross-shire, and from thence sweeps towards the Ochils at Dollar, and stretches westward along the foot of the hills, till it arrives at Craighleith, the westmost of the Alva range. Here it makes a sudden turn southward, crossing the river Forth, below Stirling, and may now be traced by Kilsyth, Campsie, and Kilpatrick, till it falls into the Clyde above Dunbarton.

Zoology.—The most rare animal found in this parish, is that species of hawk (*Falco peregrinus*) used in ancient times for the diversion of hunting. From time immemorial, this bird has had its residence in a very high perpendicular rock, called Craighleith, projecting from the brow of the Westhill of Alva. Only one pair, it

is affirmed by the villagers, build a nest in the front of this precipice. These hatch their young annually, and when the progeny are of proper age, the parents compel them to seek a new habitation; death alone obliging the original pair to resign their ancestral habitation, which falls to the next survivors. In a former age, when "lords and ladies gay" were fond of the sport of falconry, a bird of this kind was deemed very valuable, and to the present day, it is in high repute with some of our nobility, who send from a great distance to procure specimens of the breed. From this place the beautiful and unfortunate Queen Mary got falcons, soon after her arrival from France. The Duke of Athol, king's falconer in Scotland, sent for these birds, and not long ago a pair of them were sent by James Johnstone, Esq. to the Duke of St Albans, who, as king's falconer in England, still keeps up the sport of hunting with them. Eagles are occasionally seen among the Ochils in this neighbourhood.

Botany, &c.—Alva is distinguished from the surrounding country by the luxuriance of its forests and plantations. The front of the Woodhill, on which stands the house of Alva, is clothed with the richest varieties of trees. The late Sir John Erskine, some time before 1720, planted most of those which surround the enclosures immediately below the house. The east and west sides of the hill, immediately below the house, were planted by Lord Alva, to which very large additions have been annually made by the subsequent proprietors. The hill, which is fully 1600 feet above the level of the sea, is now planted within 200 yards of the summit. The pleasure-grounds and plantations are beautiful and extensive, and the appearance of the wooded hill reminds the traveller of the monastery near Florence, a description of which is given by the poet Milton. These fine plantations are upon the hedgerows of the several enclosures, and on the brow of the Woodhill where the house stands. They are diversified by the oak, the elm, the ash, the beech, the larch, and many varieties of the pine. The ash trees are remarkable for size and strength, and fair proportion. Many of the oaks are venerable for their hoar antiquity, and before their stately forms and extended boughs, the other giants of the forest bow their diminished heads. The approaches from the two lodges, wind up beautifully towards the house, and from the house to the village church, which is nearly a mile, the rows of trees on each side form an umbrageous and delightful avenue.

There is here an admirable and hitherto unexplored field for

the botanist to examine. Almost every moss of the class *Cryptogamia* is seen among the hills, also a great variety of what is rare and useful belonging to the *Phanerogamia*.

II.—CIVIL HISTORY.

Village.—The village of Alva is situated near the base of the Westhill. It does not appear certain when it was begun to be built, but we learn from the chartulary of Cambuskenneth, that Alva was a parish nearly 550 years ago, and probably a village of minor consequence existed at the same time. In the year 1795 the village was only about one-half its present size, and contained 130 families, including a few single persons, each of whom occupied part of a house. Towards the end of the seventeenth or beginning of the eighteenth century, Sir John Erskine, then proprietor, granted feus of a small parcel of ground to several inhabitants, on which they built cottages and laid out gardens. A plan seems to have been formed by Sir John, to build a village in the form of a square, two sides of which appear to have been actually completed, but the other houses have been set down at random, or wherever a convenient spot for a garden could be obtained. About the year 1767, Lord Alva, resolving to enlarge the village, granted feus to those willing to build, and in one season a complete row of new houses, amounting to 20, was erected, each house having a small garden of a few falls, equal in breadth to the extent of the front of the house. A few years afterwards, another row of houses, parallel to the former, and with gardens laid out in the same manner, was completed. The rate at which the ground was feued, was at first 13s. 4d. per fall, or 36 square yards, but it advanced by degrees to 15s. and 16s. per fall, as the premium or purchase-money, together with fourpence the fall of annual feuduty. Taking the medium rate of 15s. it will amount to L. 120 Sterling per acre, as the price of the ground, and L. 2, 13s. 4d. as the annual rent to the superior.

House of Alva.—The house of Alva, the seat of James Johnstone, Esq., is about a mile east of the village, and is delightfully situated on an eminence projecting from the Woodhill near its base. The height of the projecting part where the house stands, is 220 feet above the level of the Devon, and Woodhill rises behind it to the height of 1400 feet higher, making in all 1620 feet. The Woodhill is richly ornamented with plantations, and its summit affords a most extensive prospect to the south, east, and west. The north-west view is interrupted by the hill of Dalmyot; but

the mouth of the Frith of Forth, the Bass, North-Berwick Law, with the windings of the Forth, the coasts of Fife and East Lothian, can easily be descried from the top of Woodhill, behind the house of Alva.

Proprietors of Alva.—The estate of Alva was anciently possessed by the Stirlings of Calder in Clydesdale. From Nisbet's first volume of Heraldry, we learn that "Sir J. Menteth, son of Sir Walter Menteth, of Rusky, married Marion Stirling, daughter and coheir to Sir John Stirling, of Calder in Clydesdale, and with her he got ye lands of Kerse and Alveth (Alva), for which ye family carried ye buckler for the name of Stirling, and flourished for many years."—Sir William Menteth or Menteth of Alva, married Helen Bruce, daughter to the laird of Airth, and his son, Sir William Menteth, married Agnes Erskine, daughter to Alexander Lord Erskine, whose successors afterwards, through right of their mother, inherited the Earldom of Mar. The Countess of Mar and of Kelly is a descendant of the family of Menteth of Rusky. By the intermarriage before alluded to, it is highly probable the Alva property went to the Bruce, and afterwards to the Erskine family. In A. D. 1620 it went to Sir Charles Erskine, fifth son of John sixth Earl of Mar. His great grandson, Sir Henry Erskine of Alva, father to the present Earl of Rosslyn, sold it in 1759 to his uncle, Lord Justice-Clerk, called Lord Tinwald, whose son, James Erskine, a Senator of the College of Justice, inherited it, with the title of Lord Alva. He was one of the most energetic proprietors, with the exception of the Bruces, who founded the present mansion and church. Lord Alva sold the estate in 1775 to John Johnstone, Esq. son of Sir James Johnstone, Bart., of Westerhall, Dumfries-shire, (brother to Sir William Pulteney,) whose grandson is the present proprietor. Sir John and Sir Charles Erskine, two of the Alva proprietors, were both killed when abroad A. D. 1746. In the church-yard of Alva, there is a mausoleum built by the first proprietor of Alva, of the Westerhall family, similar to one which he had erected in Dumfries-shire, to the memory of his father, Sir James Johnstone. The ancestral vault in the church still belongs to the Erskine family, together with several marble monuments. One to the Lord Justice-Clerk is characterized by classic taste and purity of style.

Antiquities.—Near to the church several of those large stones, often found in Scotland, supposed to be the relics of Druidical days, were seen to a late date, and in the neighbouring parish of Logie some

of these memorials of other times are still standing. Our forefathers, we know, were wont to set up a stone of remembrance to commemorate any battle or signal event, or more frequently to mark the grave of a hero. In the works ascribed to Ossian, this custom is often alluded to, as when the bard, and Toscar, his brother, were sent by Fingal to signalize a victory by raising up the "grey-stone on the heath." One of these records of the past was dug up, some years ago, in a field adjacent to the glebe, lying on its flat surface, and beneath it was found a human jaw-bone so large as to be attributed to a giant. Another of these stones was long to be seen in a neighbouring enclosure, standing erect, with an inscription, so indistinct as not to be legible. The village vulcan, in his vain attempts to decypher it, got into a towering passion, and with his forehammer completely destroyed the inscription, already almost worn away by time's effacing fingers. The spirit of the Vandals is not yet dead. A few years since, while some persons were digging in the northern part of the parish, probably the site of the earliest buildings here, and called Strude, they excavated a number of human remains. The rubbish in this spot led to the belief that a cemetery, and probably a Roman Chapel, had once stood there, in times now lost in the mists of ages.

" Pulvere vix tectae poterunt monstrare ruinae."

At the northern extremity of Queenshaugh, St Ninians, a curious relic was, about A. D. 1790, dragged out of the river. It was a brass collar, with the inscription, " Alexander Stewart found guilty of death for theft at Perth, 5 Decemder 1701, and gifted by the Jusciciary as a perpetual servant to Sir John Aresken of Alva." This relic is in possession of the Antiquarian Society of Scotland.

III.—POPULATION.

The following tables will show the gradual growth of the population :—

Population in 1791,	.	611	
1801,	.	787	
1811,	.	921	
1821,	.	1197	
1831,	.	1900	
1836,	.	1470	
In 1821, under 15 years of age, males,	237,	females,	208
betwixt 15 and 30,	do. 135	do. 149	
30 and 50,	do. 109	do. 127	
50 and 70,	do. 44	do. 82	
upwards of 70,	do. 16	do. 9	
In 1821, the parish contained of males,	598,	females,	599,—total, 1197
In 1831,	males, 641,	females, 659,—total,	1300
In 1831, the number of families resident was	.	.	288
children in each family averaged,	.	.	3½

In 1881, the number of inhabited houses, was	218
houses uninhabited or building,	8
The average of marriages for the last 3 years is	18
births registered for the last 7 years is	25
deaths registered for the last 7 years is	28½

It appears from the above tables, that a very rapid increase in the population has taken place of late,—it having been almost doubled in the last thirty years, and an evident cause for this is the great recent improvements in manufactures. In 1801, only one woollen mill was established, and now there are eight mills, besides many lesser places of manufacture. Formerly, the manufacture of the district was confined to serges, plaidings, blanketings, and coarse stuffs for the West India negroes; now, in addition to these, carpets, shawls and trowser cloths, are made for foreign and home consumption.

At present, the village contains 1 surgeon, 2 schoolmasters, 13 retail shopkeepers, 2 bakers, 2 butchers, who kill once a week, 4 blacksmiths, 5 shoemakers, 2 wrights, 2 tailors, 11 masons, 5 carters, 1 slater, 1 tinsmith, 1 turner, 1 cooper, 1 engineer, 2 millwrights, 18 mechanics, 7 licensed retailers of spirits. About 50 hands are employed in agriculture in the parish, and nearly 600 in the woollen manufactures. The land is divided betwixt 4 farmers and 2 sheep-farmers, and the number of woollen manufacturers, having factories, is 7, and 24 have a business on a smaller scale. A carrier goes to Stirling and Glasgow once a week, and there is a post-office supported by private subscription, for the convenience of the manufacturers.

IV.—INDUSTRY.

Agriculture.—From the description given of the lands of Alva, it will be seen that they naturally divide themselves into arable and pasture grounds: The arable soil of this parish may be distinguished into four kinds. That which extends southward from the bottom of the hills, consists of a rich hazel mould, intermixed with gravel and small stones. This is succeeded by a stratum of moss over a bed of clay, and extending from 50 to 100 yards in breadth, and in some places this moss is found 7 feet deep. Next to this is a strong clay, extending a considerable way towards the Devon. Then follows what is called haughing ground, such as is usually found on the banks of rivers, and the inundations of the Devon, which occur twice or thrice a-year, leave great quantities of sand behind. The soil at the river's bed appears to be in many places more than 20 feet deep. The grounds produce the usual crops of wheat, barley, pease, beans, oats, clover, potatoes, and turnip.

The whole arable land has been long enclosed with hedges and ditches, which are kept in a very superior taste and style. Those fields which lie immediately below the house of Alva, at the bottom of the Woodhill, were enclosed and planted more than a century ago, and were among the first enclosures in this part of the country.

Till within the last forty years, the state of agriculture in this parish was miserable. The practice, however, of fallowing, liming, and cleaning the lands to obtain good returns—the advantage of having broad clover for summer food for horses, and being able to work them constantly, instead of sending them to graze for five months among the hills at much expense,—are now understood and acted on. Experience has proved the soil to be good, and when properly cultivated, capable of great improvement, and of producing wheat and all the strongest grain.

The improvement of the land was long kept back here, as elsewhere, by the farms remaining limited to a very few acres, and also by the farmers being bound by their leases to drive coals from the pits on the south bank of Devon to the shore of Alloa. Lord Alva at length prohibited this absurd and unprofitable practice, and the farmers have been since enabled to turn more decided attention to the improvements of husbandry. Since 1796, the extent of the farms has been enlarged with great advantage to the landlord, and greater respectability to the tenant. Formerly, the farms were limited to 30 and not more than 70 acres, now they run from 100 to 200 acres each.

The number of acres, Scotch measure, in arable and other tillage is 830.
Of land never cultivated, but applied to sheep pasture, upwards of 2000 acres.
Of cultivated land lying in pasture, and let to grazing 120 acres.
And of ground under wood there are 188 acres.

Rent of Land.—The average rent of land let to farmers is from L. 2, 10s. to L. 3, 3s. per acre,—for oxen and milk cows grazing, about L. 4 per acre. The grazing of sheep is rated about 4s. 6d. each, or L. 4, 10s. per score. The common breed of sheep here is the black-faced kind, and of cattle, the Ayrshire and the short-horned, or a cross betwixt these.

Wages.—The rate of farm-servants' wages, who work as labourers, is from 8s. to 9s. per week; and a ploughman receives L. 25 per annum, including all provisions.

Produce.—The average produce of grain of all kinds raised in this parish, is 3060 bolls,—of potatoes, turnips, cabbages, &c. the average gross amount is valued at L. 1020,—of hay cultivated, at

L. 275. About one acre is annually planted with woad for dyeing woollens blue, and is said to bring L. 20 per acre, but it greatly impoverishes the land. The annual thinning and periodical felling of woods, plantations, and copse, yields about L. 160.

The three Alva hills have been divided into two separate farms for sheep,—one comprehending the Westhill, the other the Middlehill, together with part of the Woodhill. The former is capable of maintaining 70 score of sheep, and the latter will maintain from 60 to 65 score. On the higher and back-lying ground, the soil is mossy, and produces abundance of heath, together with a strong and coarse grass. This, however, is resorted to by the older part of the flocks, and the shepherds keep them there for the purpose of preserving the fore-ground against the winter season. It is now the practice with the sheep-farmers to breed a few young sheep; but these bear no proportion to the number of the stock. They have always a proportion of ewes on their farms, and the lambs are chiefly sold to the butcher. The farmers go every year about Midsummer to Linton markets, and purchase sheep of a year old, which, according to the custom of the sheep-farmers in the south, are smeared with tar, and after being shorn twice white, as they express it, are sold in August and September to the butcher. Snow seldom covers these pasture-hills longer than a few days together, and even then the sheep browse on the young furze and thrive well. The hills and plantations afford excellent shelter to the flocks, which have never greatly suffered, compared with those in other places from heavy snow storms.

Manufactures.—Perhaps the most important feature of this parish, is the state of its woollen manufactures. For upwards of a century and a-half, these have been carried on in the village of Alva. In the early history of the district, the staple trade consisted chiefly of serges. There is no doubt that this species of manufacture also flourished long ago in the neighbouring village of Tillicoultry; and to this day it is known among the shopkeepers of the Lawnmarket of Edinburgh by the name of Tillicoultry serges. These were soon superseded by the more useful article of plaidings and blanketings, which became the principal commodity after the first woollen factory was built, in the year 1798. Since 1826, however, tartan shawls have been introduced, and become the most general article manufactured. In 1832, chequered cassimeres began to be made, and they now form a considerable branch of business. These manufactures find a market in Stirling, Perth, Edinburgh, but especially in Glasgow. There are

eight woollen mills, whose annual consumpt is not less than 480,000 lbs. of wool. The manufactures make use chiefly of English wool, from the sheep that pasture on the Cheviots, which costs from 1s. to 1s. 6d. per pound.

The number of persons employed is as follows : In the factories, 149 men, 50 women, 81 children ; in the village 89 men, 175 women, 21 children, making the total number employed in these woollen munufactures 565 individuals. The total number of looms is as follows : looms in the factories, 90 ; looms in the village 80 ; total 170. Of these, about 100 are employed in weaving soft tartan shawls—40 at blankets and plaidings—24 at chequered cassimeres—and 6 at carpetings. The wages of weavers may average about 15s. per week, and superior workmen can earn from L. 1, to L. 1, 4s. The ordinary hours of labour are from 6 o'clock A. M. to 7 o'clock P. M., except on Saturday, when labour is given up at 5 P. M., and from this stated time one hour is allowed for breakfast, and one for dinner. The working classes here are exceedingly healthy, and the children particularly exhibit remarkable vivacity of mind, and vigour of body.

V.—PAROCHIAL ECONOMY.

Ecclesiastical History.—The parish of Alva was, long before the Reformation, in the diocese of Dunkeld and under the ecclesiastical jurisdiction of the Bishop of that See. By an extract taken from the chartulary of Cambuskenneth, in the neighbourhood of Stirling, we learn, that the church of Alva was a mensal church, as it is called, (*de mensa Episcopi*—part of the funds for the Bishop's support,) belonging to that abbacy ; and that the monks, who were of the order of St Augustine, performed duty there, from want of a sufficient fund to maintain a resident and regular clergyman in the parish. In the year 1260, Richard, Bishop of Dunkeld, made a donation to the monks of the church of St Mary at Cambuskenneth, of "the church of Alva with all its legal pertinents," and dispensed with their employing a vicar to officiate stately. The following reason is then assigned, "*virorum religiosorum abbatis et conventus de Cambuskenneth, paupertati compatiētes,—charitatis intuitu, et propter tenuitatem ecclesie de Alveth.*" By another extract from the same chartulary, it appears that Alexander, styled Dominus de Striveling Miles, made a grant of one acre of land to God, the Virgin Mary, to St Servanus, and to the church of St Servanus de Alveth, describing it particularly as lying near the well of St Servanus, "*et inter ipsum fontem (St Serf's well) et ecclesiam.*" This charter bears date

A. D. 1276. The well is still within the limits of the minister's glebe, and continues to send forth a stream of excellent water; but the course is almost choked up with weeds and rushes; the consecrated name has long been forgotten; and its neglected state calls loudly upon the tutelary saint, or some Catholic devotee, to rescue its name from oblivion, and disclose again its healing virtues. About twenty years after the Reformation, and when Stirling, and a few parishes around it, were provided with stated pastors, the presbytery of Stirling was erected on the 8th day of August 1581, in consequence of an order from the General Assembly to that effect. From 1581, till the year 1632, this parish was united to the neighbouring one of Tillicoultry—the minister of Alva officiating in both. The livings of both hardly afforded a decent subsistence; and the stipend of Alva did not exceed 300 merks Scots, or L. 16, 13s. 4d. Sterling.

The fabric of the present church was built in 1632 by Alexander Bruce, then proprietor of Alva, who afterwards making a small addition to the stipend, procured its disjunction from Tillicoultry. The church stands a little to the east of the village, upon an eminence, commanding a fine view of the valley of Devon. The fabric is in excellent condition, but long after it was built it remained in an unfinished state—the walls and roofs were unplastered—the windows small and ill situated—and the seats in a ruinous condition. In the year 1815, at the expense of James Raymond Johnstone, Esq. it was wholly rebuilt, and fitted up properly within, so as to accommodate 586 sitters, estimated at 18 inches for each, and at present it is a comfortable and elegant place of worship.

The pews are allotted by the heritor rent-free to his tenants and feuars, and the remainder, with the communion table seats, are open to the villagers.

The church-yard is beside the church, finely sequestered from the bustle and business of men, and contains some epitaphs of the "rude forefathers of the hamlet," sufficiently curious.

The present manse is near the church, and was built in the year 1762, upon a very neat and commodious plan.

In the year 1765, Lord Alva, then proprietor of the barony, sensible of the smallness of the living, very generously, and without any application from the incumbent, gave an augmentation in victual, to the amount of L. 22 Sterling, at the usual conversion; by which the stipend consisted of L. 34, 1s. 9d. Sterling, in money, including the allowance for communion elements, together with 40 bolls of barley, and 32 bolls of meal. The Rev. Mr Duncan, to

whom this augmentation was given, gratefully records (in his Statistical Account, to which we are indebted for the fulness of the present report,) that Lord Alva not only resolved of his own accord to give this grant, but actually executed a summons against himself as sole heritor, in name of the minister, and without his knowledge, as the first step towards accomplishing his generous resolution. The glebe consists of nearly nine acres.

James Johnstone, Esq. is sole heritor of the parish.

Education.—The present parish school-house, built in 1828, is a fine house situated in the centre of the village, and fitted to accommodate upwards of 100 scholars. The salary of the parochial teacher is L. 29, 18s. 10d. Sterling. The village also contains a subscription school, and there are besides an infant school and a seminary for the education of female children, almost wholly supported by the patronage and bounty of Mrs Johnstone, and the young ladies at Alva House. Besides the other elementary branches of knowledge, the children are taught to knit and sew. Many great improvements have been recently adopted in the intellectual and moral training of children, which it is most desirable should find their way into this district.

The number of individuals, including children, professing to belong to the Established Church, in the year 1836, is 1185, or 262 families. Belonging to the Dissenting congregations, there are 272 persons, including children, or 60 families, averaged at $4\frac{1}{2}$ for each family.

Poor and Parochial Funds.—The poor receiving parochial aid are few in number, seldom exceeding a dozen; and occasional supply is given to others not on the poor's roll, as their necessities demand. On a board in the session house, we have recorded the following donation to the poor, A. D. 1764:—"John Mitchell, farmer in Windlestrawlee, near Leith, bequeathed to the poor of the parish of Alva the sum of L. 50 Sterling. Remember the words of the Lord Jesus, 'It is more blessed to give than to receive.'" The ordinary collection, with the interest arising from a small fund, and the common dues of the parish mortcloth, without any assessment upon the heritor or inhabitants, has hitherto maintained the poor. Examples are not uncommon of individuals refusing to accept charity from the parish, and, with that patience and honest pride peculiarly Scottish, undergoing privations untold, rather than ask or take relief.

Drawn up in 1836.

Revised April 1841.

PARISH OF POLMONT.

PRESBYTERY OF LINLITHGOW, SYNOD OF LoTHIAN AND
TWEEDDALE.

THE REV. JOHN KER, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, Boundaries, &c.—The etymology of Polmont is uncertain. Most probably, it is derived from a Celtic word, signifying pool of the moor, in allusion to the ancient state of the low part of the parish, which, though now highly cultivated and very fertile, bears abundant traces of its once having been covered with water. Its greatest length is about six miles and a-half, and its utmost breadth about 3 miles. It is bounded on the north, by the Frith of Forth; on the east, partly by the river Avon, which separates the county of Stirling from the county of Linlithgow, and partly by the parish of Muiravonside; on the south, by Muiravonside and Slamanan parishes; and on the west, by the parish of Falkirk.

Its general appearance is rich, varied, and beautiful. It is divided usually into two parts. The lower portion, which forms the Carse, is flat, and too valuable to bear any thing but grain; but the higher portion, which is termed the dryfield, is undulating, well-wooded, and adorned with many handsome villas, and mansion houses. The Carse is on a level with the sea, and would still be flooded by the tide, were it not protected by a strong embankment. The dryfield rises gradually, till it reaches the extreme height of about 553 feet, where is obtained a very extensive prospect, and remarkable both for its beauty and grandeur.

Meteorology.—The yearly depth of rain, on an average of seventeen years, from 1821 to 1837, is 31.31 inches. The district is very healthy. Though in one part of the parish, the cottages are far from being comfortable, being built generally of turf and clay, and the population considerable, if not crowded, there is very rarely any epidemic, even when prevalent in the villages of some of the adjoining parishes.

Geology and Mineralogy.—The minerals are both abundant and valuable, consisting of freestone, coal, ironstone, with fire-clay.

The freestone, which is the only rock, extends nearly throughout the whole of the parish. The dip of the strata generally is to the north-east, except when their position is altered by a dike which traverses one part of the parish, as exemplified in Brighton's Quarry, when the strata in consequence dip to the north-west. This is the only quarry which is at present in operation. Recently it has been, and is still wrought to a great extent, on account of the increase of demand for stone, occasioned chiefly by the projected railway between Edinburgh and Glasgow. The quality of the rock is good, the colour brownish. Stones of any size can be procured. But preparations are making for opening another quarry at Battock. The freestone here forms a lower bed than what is found at Brighton's. It is of a white colour, and is hard and durable. The dip of the strata is to the north-west.

The coal is situated in different parts of the parish. The prevailing dip of the strata is to the north-east, rising, consequently, to the south-west, with an inclination of 1 in 12. The coal-field is intersected by several slips or dislocations, by which the strata are depressed in some instances many fathoms. Hence it frequently happens, that the seams of coal on the one side of a slip are not found on the other, being either thrown off, or thrown down to so great a depth, as to render the working of them impracticable, while new seams are often superinduced. Two main slips have been ascertained. These run from north-west to south-east. Besides, a great number of smaller slips have been discovered in sinking the coal; yet, on the whole, the coal-field, compared with many others, may be considered a clear field.

About half a mile west from Brighton's Quarry, one of the main slips is met with, which throws down the coal to the westward about 20 fathoms; and about three-quarters of a mile to the west of the first, is the second main slip, by which the coal is depressed to the westward upwards of 30 fathoms.

The first coal, found to the east of the first main slip, consists of two seams. The upper seam is about 10 or 14 fathoms below the surface, and is of a soft caking quality. Here it is from 34 to 36 inches thick, though, between the two main slips, it does not exceed 21 inches. Beneath this seam about 8 fathoms is the lower one; it is $4\frac{1}{2}$ feet thick, and its quality is inferior, because there are several ribs of stone in it. Immediately above this seam

there are two or three bands of ironstone, which has been long wrought by the Carron Company and others, and is now nearly exhausted. But, besides these seams, it is proved that there are other two of considerably greater depth, which have not yet been opened up.

In the part of the field which extends between the two main slips, there occurs above the seams already described, to the eastward of the first main slip, a seam of soft coal, and it is the only one, excepting the seam just below the ironstone, which for many years has been wrought.

To the westward of the second main slip, the first seam, which is limited to this part of the field, is to be found only in the higher grounds, and is of very partial extent. It is from 4 to 5 feet thick, of excellent quality, and rarely more than eight fathoms beneath the surface; but it is now almost wrought out. The second seam, which is also peculiar to this part of the field, and found from 25 to 35 fathoms below the surface, is the splint coal; it is 34 inches thick, and the quality is good. Below this seam 14 fathoms is the soft coal, previously mentioned, of 32 inches thick, and likewise of fine quality. Besides the seams occurring in the eastern part of the field, it is ascertained that here there is another, 30 inches thick, 46 fathoms under the soft coal; but to it there have hitherto been no sinkings.

The coal proprietors are, the Duke of Hamilton; William Johnstone, Esq. of Meadowbank; and John G. Drummond, Esq. of Abbotsgrange. To the first, belongs the Redding Colliery; to the second, the Middlerig Colliery; and to the last, the Shielhill Colliery. The Redding Colliery is conducted on the largest scale. The coals from the pits are raised by steam-engines, and conveyed to the Union Canal by a railway with inclined planes; one of these being upwards of 800 yards in length, and at which can be let down at one time from 10 to 12 tons. The splint and soft coals are those which are at present wrought, and sent chiefly to the Edinburgh market. The output varies, of course, in amount with the demand. But the quantity must be always very great, as there are employed at the Redding and Middlerig Collieries upwards of 400 men,—miners, labourers, and artificers, besides drawers, an office performed usually by boys, and by women or girls. Of the Shielhill Colliery, the Carron Company are lessees; and though at one period it was carried on very extensively, they have

removed, meanwhile, their workmen almost entirely to the neighbouring parish of Falkirk.

The soil is of divers kinds. In the Carse, it consists of clay, of great depth, and of fine quality; being entirely without stones, and obviously an alluvial deposit, both from the number of marine shells with which it abounds, and from the general elevation of the surface not being above the rise of the tide. In the dryfield, it is chiefly of a gravelly or sandy nature, though in some places it is composed of clay, and in others of moss.

Zoology.—The population is too dense to admit of game being plenty. But all the common varieties are found, and some of those which might scarcely be expected in this district, such as the red and black grouse, and the wild duck. The squirrel is frequently met with,—more rarely the otter. Besides the more ordinary descriptions of birds, there are the jay, the sparrow-hawk, the common owl, and the water hen, while we have occasional visits of the wild-geese and the heron. In the Avon, numbers of sea-trout of good size are caught in the spring and autumn; but salmon very seldom.

Botany.—The wild plants are numerous but not rare. I am not aware of one which is worthy of being specified, except the *Osmunda regalis*, or flowering fern, which is found on the banks of the Avon. All the species, both of fir and of hard-wood, thrive well, but the last are chiefly grown. An attempt has been made to introduce some of the varieties of the Canadian apple, viz. the *Pomme grise* and the *fameuse*, by Mr Logan of Clarkstone, but not with much success, in consequence of our summers being generally too cold to bring the fruit to maturity.

II — CIVIL HISTORY.

As the parish is but of recent formation, it affords few materials for history. It was disjoined from that of Falkirk in 1724. Its name, however, must be at least of long standing, for among the titles of the Duke of Hamilton, he is called Lord Polmont. I know not of any notices of the parish, save in the previous Statistical Account, and in Nimmo's History of Stirlingshire; and, in both, the notices are brief and meagre.

Eminent Characters.—Dr Henry, one of the ministers of Edinburgh, author of a History of Great Britain, resided here, for several years, during the summer months, and was buried in the churchyard in 1790, where there is a monument to his memory.

Land-Owners.—The principal of these are, the Earl of Zetland;

John G. Drummond, Esq. of Abbotsgrange; and Captain Dalgleish of Reddoch,—all of whom are non-resident; and among the chief resident proprietors are, Sir Thomas Livingstone, Bart. of West-quarter; William Logan, Esq. of Clarkstone; Thomas Walker, Esq. of Polmont Bank; James Milne, Esq. of Haypark; and William Johnstone, Esq. of Meadowbank. There is a peculiarity connected with the resident proprietors, which should be mentioned. Many of them, though the annual value of their lands be not great, are possessed of independent fortunes, derived from other sources. In the Carse, the properties generally do not consist of more than forty or fifty acres each, yet there have been few changes among the owners. For several generations, the same lands have been held, in various instances, by the same families.

Parochial Registers.—There are registers of births and of proclamations, both of which commence at the origin of the parish. There is also a register of funerals, which extends back for fifty years.

Antiquities.—The Roman Wall, commonly called Graham's Dike, erected by the Emperor Antoninus Pius about the year 140, and stretching from the Frith of Forth to the Frith of Clyde, passed through the parish. All remains of it have disappeared, though some existed only a few years ago. On the hill beyond Redding is a stone, known in the neighbourhood by the name of Wallace's Stone, and, if tradition be credited, commemorative of the place where the famous Sir William Wallace, in consequence of his quarrel with Sir John Stewart, another of the Scottish chiefs, viewed the battle of Falkirk, from the site of which it is distant about two miles, and of which it commands a prospect,—a sullen and inactive spectator. But, whatever be the credit attached to the tradition, the stone is obviously of recent origin, and, on examination, will disappoint the antiquary.

Modern Buildings.—Most of the houses of the resident proprietors are modern,—Polmont Park, Parkhill, Clarkstone, Polmont House, Millfield, Polmont Bank, &c.

III.—POPULATION.

Amount of population in 1755, by Dr Webster's Return,	1094
1791,	1400
1801,	2194
1811,	1827
1821,	2171
1831,	3200
1835, December, by a census taken by the writer of this report,	3107

These statements require, perhaps, some explanation. In 1801, the colliery at Shielhill was in active operation, and hence the large

increase at that time compared with the census in 1791. In 1811, the work there was almost discontinued, and hence the decrease. Again, from 1821 to 1831, the Redding colliery was conducted on more than its present extensive scale; and in 1835, the diminution was occasioned by fewer workmen being employed.

The population connected with the collieries amounts to about 1000. The rest of the population consists of agricultural labourers and quarrymen, with a small number of shopkeepers and mechanics.

During the last seven years, the average number of births was 83, and of marriages, 27. The number of deaths cannot be ascertained with any accuracy. There is only a register of funerals, and as many from neighbouring parishes are buried in the church-yard, it gives no correct index of the mortality in the parish. Nor is much reliance for any practical purpose to be placed on the registers of births and of marriages, or more properly of proclamations; for not a few omit to record the names of their children. Though an account be kept of the publication of bans, it often happens that one of the parties resides in another parish.

Of villages, the two principal are, Bennetston and Redding; the former containing 474 inhabitants, the latter 587.

In September 1838, there were 34 different proprietors on the list of heritors. Of these, 27 have properties of the yearly value of L.50 and upwards, and two only draw from their lands in the parish above L.1000 per annum.

The people, on the whole, are orderly and peaceable. Among the colliers, there has been a perceptible improvement during the last few years—more attention being paid to the education of the young.

IV.—INDUSTRY.

Agriculture :—

Land cultivated, or occasionally in tillage,	3790 Imperial acres.
Uncultivated,	531
Under wood,	100

The uncultivated consists of the Redding Moor, and is capable of being cultivated. It is an undivided common, belonging to the Duke of Hamilton; but the right of pasturage is held by some of the other heritors. Till very recently, it was altogether a waste, when portions of it, with the permission of the superior, were partially enclosed and cultivated, chiefly with the spade by the colliers, at their spare hours,—a circumstance creditable to their industry, and advantageous to their morals; and in some instances, they have reaped an abundant produce both in oats and potatoes. Were the whole brought under culture, it would be a very great improvement.

Rent of Land.—The rent of Carse land varies from L. 3 to L. 4, 10s. per acre, according to the prices of grain determined by the county fiars, and of dryfield from L. 1 to L. 3 per acre. The real rent of the parish is between L. 7000 and L. 8000.

Wages.—The wages of labourers per day run from 1s. 8d. to 2s. Farm-servants, hired for the half-year, receive from L. 7 to L. 10, with bed and board.

Husbandry.—In the dryfield the five-shift course is followed, and in the Carse, very generally the six-shift, viz. 1. summer fallow; 2. wheat; 3. beans; 4. barley; 5. hay; and 6. oats. Great improvement has lately been made in the culture of land, in consequence of the introduction of tile-draining. It costs per acre from L. 4 to L. 7, according to the nature of the soil, and, if small stones or gravel be laid above the tile, the expense will be increased; but the increase of expense is amply compensated by the increase of benefit. The whole outlay is repaid in additional produce in a few crops. There is one steam-engine in the parish, which turns a thrashing mill—a great saving in horse-labour, and otherwise not costly, as coal is near and cheap. It may be proper to state, that great facilities are afforded for conveying manure here, from Edinburgh and Leith, both by the Union Canal, and by the Frith of Forth. Nor are these facilities disregarded. The mode of farming usually practised is of the most approved kind. The land, particularly in the carse, and in the dryfield to the north of the Union Canal, is almost in as high a state of cultivation as it can be brought by skill and capital; but the same thing cannot be said of the land to the south of the Canal, and in the most elevated district of the parish, where, for the most part, the poverty of the soil operates as a hinderance to improvement.

There are two works for making tiles and bricks.

Produce.—The average gross amount and value of raw produce, as nearly as can be ascertained, are the following:

Wheat,	450 imperial acres, at 4 quarters per acre,	.	L. 4320	0	0
Oats,	700 do. 5 do.	.	2825	0	0
Barley,	450 do. 5 do.	.	3375	0	0
Beans,	300 do. 3½ do.	.	1575	0	0
Potatoes,	160 do. 5 bolls,	.	2640	0	0
Turnips,	80 do. L. 10,	.	800	0	0
Hay,	450 do. 180 stones,	.	2700	0	0
Pasture,	1200 do. L. 1, 10s.	.	1900	0	0

L. 20,035 0 0

V.—PAROCHIAL ECONOMY.

Market-Town.—The nearest market-town is Falkirk.

Means of Communication.—There is no want either of modes

of conveyance or of communication. The post-town is Falkirk, from which there is a runner daily for the delivery of the letters ; but, no doubt, the establishment of a regular post-office in Bennetstown would be a great improvement, for the runner requires to travel over so wide a field, that the letters are seldom received by many in time to be answered in course. There are about two miles of turnpike ; and coaches pass daily to and from Edinburgh, Glasgow, and Stirling. The Union Canal also intersects the parish for about two miles and a-half ; and the projected railway* between Edinburgh and Glasgow, so far as it extends in this parish, will be almost in the line of the Union Canal.

Ecclesiastical State.—The present church was built in 1731. It is seated for 607. It is damp, ill arranged, and most inadequate to the wants of the parish. The number of communicants belonging to the Establishment cannot be accommodated in it, for they amount to 749 ; and the total number of individuals connected with the Establishment, according to the census of 1835, was 2585. Since that period, the proportions have not decreased but increased. Yet how long the present church may stand, it is hard to tell. It cannot be condemned, and by the existing law, all the heritors must agree before a new one can be erected, and, consisting of above thirty, unanimity among so many is not easily attained. In the Redding district, where the destitution is greatest, there is a preaching station. There a probationer of the Church of Scotland has officiated regularly since 1835, in a school-room belonging to the Redding colliery ; yet, prior to that period, service was performed occasionally in it on the Sabbath evening by the parish minister. The Dissenters in the parish belong to the United Associate Synod, the Relief, and the Cameronians, and attend public worship at Falkirk, Lauriston, and Linlithgow. The whole of these, including a few Episcopalians, amount to 503, and the total number of sittings rented in their respective places of worship is 158. There are nineteen persons who profess to belong to no religious denomination. In the village of Bennetstown there has been for upwards of two years frequent service on the Sabbath evening in a school-room, by ministers or preachers of most of the Dissenting denominations in the neighbourhood.

The manse is in good repair. The glebe consists of five Scotch

* This railway is now nearly made. It is expected that it will be opened for the passage of locomotive carriages by August or September next.

acres. The garden, with the shrubbery, extends to about an acre more. The stipend is 17 chalders, half meal, half barley, with L. 8, 6s. 8d. for communion elements.

Religious Societies.—A Bible Society has existed for many years. Since the dispute between the British and Foreign, and the Edinburgh Bible Societies, its annual income has never been so large. It fluctuates now from L. 6 to L. 8.

Education.—The parochial teacher receives the maximum salary—L. 34, 4s. 4½d. The scholars are so numerous, as to render an assistant necessary, who is paid by the teacher—the average number being about 140. The whole emoluments, including the fees of the session-clerkship, exceed L. 100 per annum. This is the fiftieth year of the present teacher, Mr Thomas Girdwood's tenure of office, and no man ever filled it more worthily, or more efficiently discharged its duties. There are other five schools, attended in all by 250 scholars; but the provision for the support of the teachers, consisting, with one exception, entirely of the school fees, is generally very inadequate.

Of Sabbath schools, there are three,—one taught by the preacher at the preaching station; one by the teacher at Old Redding, under the superintendence of the minister of the parish; and another at Polmont by the parochial minister, assisted by the parochial teacher.

Library.—A parish library was instituted in 1820. It contains 340 volumes. While the novelty lasted the books were eagerly read by the working-classes, for whose benefit it was intended; but the interest, for some time, has much subsided; and proportionally the subscribers have been reduced.

Savings Bank.—One of these has existed since 1818. It is chiefly parochial. The deposits are lodged principally by farm-servants. The following is a state of the funds for the last four years.

January 1835,	.	L. 279 0 10
Do. 1836,	.	282 5 1
Do. 1837,	.	310 6 8
Do. 1838,	.	349 16 2
Do. 1839,	.	309 3 10

There was a benefit society; but, as it was established on faulty principles, the box was broken, and the society dissolved a few years ago, in consequence of the payments being inadequate to meet the expenditure, and the rapid diminution of the funds. There are still two societies for defraying funeral expenses.

Poor and Parochial Funds.—The average number of poor on

the roll is 37. In 1838, there were 39 regular pensioners. The whole sum divided among them was L.84, 14s. None of them receive above 5s. per month, nor less than 3s. per month. In addition to this sum, there were expended in occasional allowances, L.26, 4s. 5d. The funds are made up of collections at the church doors, proclamation dues, &c. The average amount of collections yearly is L. 78; exclusive of sums gathered for special charities or missionary objects. For the last two years, they have exceeded the usual average; amounting in 1837 to L. 80, 3s. 7½d.; and in 1838, to L.84, 13s. 7½d.* The income arising from other sources is very fluctuating. In 1837, it amounted to L. 31, 6s. 8d.; and in 1838, to L. 42, 8s. 5½d. Hitherto the poor have been supported without an assessment,—at least for many years; and I trust the day is yet distant, when such a mode of providing for their wants must be resorted to, because of the manifold evils which it brings in its train. But much depends on the conduct of the heritors, whether so untoward an event is hastened or retarded, if not altogether averted. Here, as elsewhere, there is a growing disposition to claim parochial aid; and, in consequence of the collieries being wrought so extensively for the last fifteen years, it is not unlikely that the number needing aid will be ere long increased. Then the chief resources at present to supply the necessities of the poor arise from the collections at the church door. But if the church accommodation remains stationary, while the population is augmented, if the means are not afforded for their attendance on public worship, for their being trained up in moral and religious habits, it is more than probable, that, among the baneful effects thereby occasioned, will be an increase of pauperism so great as to render necessary a compulsory mode of relief.

Inns.—Of these, there are three in Bennetstown, and one at Polmont kirk. The number of taverns or public-houses in the parish is large, and some of them might be spared, without injury to the comfort, and with advantage to the morals of the people.

Fuel.—It consists almost entirely of coal. Recently the ton cost from 6s. to 7s. 6d. at the hill. At present the price per ton is 5s. 10d. But even this sum is considerably larger than the price for the same quantity a few years back.

* It ought to be stated, that, at present, there are two pauper lunatics for whose maintenance provision is made by an assessment on the heritors, and the amount of which is kept entirely distinct from the administration of the funds appropriated to the support of the ordinary poor.

PARISH OF BOTHKENNAR.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. JOHN CAW, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE word Bothkennar is of Celtic origin, and signifies the small arable fen or marsh,—a name highly descriptive of the situation of the parish, which is very small, all arable, and appears at first to have been marshy, from having been made up from the alluvial deposits of the Frith of Forth.

Extent, &c.—It is bounded on the north, by the parish of Airth ; on the east, by the Frith of Forth ; on the south, by the river Carron ; and on the west, by the parish of Larbert. It consists of 1248 acres, and forms nearly a square with the church in the centre. It is situated in the Carse of Falkirk, and forms by far the richest patch in that district, and is, perhaps, not equalled by any Carse land in Scotland.

Topographical Appearances.—The surface of the parish is a dead flat, no one part of it being six feet higher than another ; and it is a remarkable circumstance, that there is not a stone to be found in the whole parish of the size of a pepper-corn, unless brought from other places by manure, &c.

Geology.—There are no useful minerals in the parish, with the exception of coal of the best quality, which is wrought to a great extent by the Carron Company, and for which they pay the landed proprietors L. 1000 a-year.

Soil.—It consists of the richest loam, and, as a proof that the parish has been, at one time, all under water, beds of shells and other marine productions are found in almost every part of it, from two to twelve feet under the surface.

II.—CIVIL HISTORY.

Land-owners.—There are eighteen landed proprietors, all of them non-resident, except three. The Earl of Zetland holds considerably more than one-third of the parish ; and the family has been always distinguished as liberal and indulgent to their te-

nantry. During the French revolutionary war, they let their lands at L.5, 5s. per acre, but never exacted more than L.4, and every year gave the tenants a full discharge. The other principal proprietors are, Henry Stainton, Esq. of Gairdoch; Colonel Dundas of Carron Hall; and John Walker Ogilvie, Esq. of Orchardhead. The remainder of the parish is held by others, to the extent of from two to sixty acres each.

III.—POPULATION.

About twenty years ago, the population of the parish did not amount to quite 500; but since the establishment of the colliery by the Carron Company, it has increased as follows:—

In 1811	821
1821	895
1831	905

IV.—INDUSTRY.

Agriculture.—In no part of Scotland is agriculture better understood, or pursued with more eagerness and success than in this small parish. The soil is so favourable for the production of grain, that there is not in it one acre of natural grass. Tile-draining has, for several years past, been carried on to such an extent, that almost every acre of it has been subjected to this most important improvement, so important that the farmers assert, that they are paid all their outlay by the additional produce of the two first years. The mode of cropping is that of a six years rotation; 1. naked fallow; 2. wheat; 3. beans; 4. barley; 5. grass; 6. oats. Perhaps the ingenuity of man cannot discover a more important rotation for carse land than this, as a green crop intervenes between every two white ones.

Rent of Land.—For several years past, the lands have paid principally a grain rent of from eleven to twelve bushels of wheat per Scotch acre, with, in very few instances, a maximum and minimum of from L.1, 5s. to L.1, 15s. per boll of four bushels, regulated by the fiars of the county.

Rate of Wages.—Farm-servants are engaged by the half-year, at from L.9 to L.11. There are no day-labourers in the parish.

Stock.—There is much attention paid to the rearing of horses for farm purposes, which are of a superior description. No greater number of cows are kept, than is necessary for supplying the family with dairy produce.

Produce.—Wheat and beans are the most productive crops. The average of wheat may be stated at six quarters per acre, and in some favourable seasons has amounted even to nine. The time

of sowing is always about the month of September. The average of beans is from four to six quarters an acre. Barley and oats much the same as in the neighbouring districts. The hay raised in the parish is of a very superior quality, and brings readily 3d. per stone, in the Edinburgh market, more than dryfield hay. The average produce may be stated at 300 stone of 22 pounds per stone an acre. There are fourteen orchards in the parish; and the first of them appear to have been planted by the monks of Cambuskenneth, who understood gardening better than any other part of the community at the period in which they lived. The soil is particularly adapted to pear trees, which bear more abundant crops than in any part of Great Britain. The golden-nap, which appears to be indigenous, grows with all the luxuriance of a forest tree, and never cankers. Its value is so great, that single trees have, in some particular years, brought from L. 10, 10s. to L. 12, 12s.; and a single acre has in some years given L. 100.

V.—PAROCHIAL ECONOMY.

Villages.—There is no village in the parish, except a small portion of Carron Shore, the greater part of which is in the parish of Larbert.

Means of Communication.—The roads are, in general, kept in good repair by the Statute Labour; and there is easy access to every part of the country.

Ecclesiastical State.—There have been only five Presbyterian ministers in this parish since Episcopacy was abolished, viz. Mr Lindsay, settled here in 1721; Mr Penman, in 1744; Mr Nimmo, in 1765; Mr Dickson, in 1783; and the present incumbent, in 1796. There is a circumstance worthy of notice, that, while in every other parish in Scotland there was a great aversion to Episcopacy, this parish was so much attached to it, that they kept their minister, Mr Skinner, a most worthy man, from 1688 till 1721; and had he not then resigned his situation, it is probable he would have died among them in the full exercise of his ministerial functions. While the law of patronage was established in every other part of Scotland, the inhabitants of Bothkennar have enjoyed the invaluable privilege, from the days of the Revolution to the present time, of choosing their own ministers, through the indulgence, in the first instance, of the Crown, and, latterly, the Grahams of Airth, into whose hands it came. The consequence of this indulgence is, that the people are much attached to the Established Church, and there are not above six or seven families of Dissenters in the parish, all of whom, except one, have

come from other parishes. It is to be regretted that the family of Airth, a very few years ago, sold the patronage for L. 2420. It is at present again in the market, but not yet sold. A new church was built in 1789, and, though not distinguished for external ornaments, it is one of the most comfortable in the neighbourhood, and more than sufficient for the accommodation of the parish. A new manse was built in 1816, at an expense of L. 1575, and is, to the honour of the heritors, the best in the county. The stipend is 17 chalders of victual; and the teinds are exhausted. The glebe consists of four Scotch acres of the best land. The Earl of Zetland has reclaimed from the Frith of Forth, by embankments, about 200 acres, which have not as yet been subjected to the payment of any part of the minister's stipend. There are still 800 acres which are left dry by the tides twice every twenty-four hours, and which will certainly, at no distant period, be recovered from the sea.

Education.—There is no other school than the parochial, the salary of which is the maximum. The heritors, with their accustomed liberality, built a school and schoolmaster's house in 1830, at an expense of L. 600, and they have allotted to the schoolmaster the fourth of a Scotch acre for garden ground. The number of scholars is, at an average, about 60. The branches taught are, English grammar, arithmetic, writing, geography, mathematics, Latin, and Greek.

Poor.—From the parish being almost altogether rural, the poor roll seldom contains more than six, who receive a weekly allowance of from 6d. to 1s., with an occasional supply of coals and clothing during the winter season. The collections at the church door amount to about L. 15 annually. The late John Ogilvie, Esq. of Gairdoch, bequeathed, about twenty years ago, to the native poor of the parish, L. 500, which is lodged in the public funds, and the interest of which is to be laid out in the purchase of meal, when the price exceeds the average of the last seven years by one-fourth part, according to the fiars of the county. James Watt, Esq. a native of the parish, and a merchant in London, bequeathed also L. 100 to the native poor, which is under the management of the heritors and kirk-session.

Fairs.—There are no fairs in the parish. The market-town is Falkirk, to which the produce is principally carried.

Inns.—There are six public-houses, five of which are in the village of Carron Shore.

Fuel.—The inhabitants enjoy an abundant supply of the best coal, at the rate of 7s. per ton.

MISCELLANEOUS OBSERVATIONS.

The inhabitants of Bothkennar are distinguished for their sober and industrious habits, and live in the most friendly terms with each other. They are most attentive to the public ordinances of the Gospel; and their moral conduct has been such, that there is not an instance upon record of any individual having been arraigned or punished for any offence against the laws of his country. Since the opening of the colliery in this district, a large proportion of the parish, as already stated, are employed in that establishment, whose habits and manners, it is much to be regretted, are not such as become the Gospel. Their wages are high, and the greater part is spent on the Saturday and Sabbath in public-houses, which contributes exceedingly to make them inattentive to the ordinances of religion. Very few of them at any time enter the house of God.

April 1841.

PARISH OF MUIRAVONSIDE.

PRESBYTERY OF LINLITHGOW, SYNOD OF LOTHIAN AND
TWEEDDALE.

THE REV. JAMES M'FARLAN, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name is commonly pronounced and generally written in ancient records, *Moranside*, and is derived, doubtless, from the position of the parish on the river Avon, and its uncultivated aspect in former times. Our silver communion cups, however, probably presented to the parish by the Earl of Callendar, and Lord of Almond, are said, in 1676, to belong to the Church of Almond: this, together with a tradition, that the minister once lived at Almond Castle, which is not far from the church, makes it probable that the chaplain of the castle, having assumed the spiritual superintendence of the district, got it erected into a separate parish, as it is repeatedly mentioned among the patronages of the Earls of Callendar and Linlithgow, as anciently forming part of the parish of Falkirk.

Extent and Boundaries.—The length of the parish is about seven miles: its irregular breadth may average two. The river Avon descending towards the north-east, till it turns to the north and west, not far from Linlithgow bridge, bounds its extreme length on the south-east, and forms the border of its breadth on the north-east, separating it from the parishes of Slamannan, Torphichen, Linlithgow, and Borrowstounness, till it meets with the rivulets which form its less apparent division from Polmont and Slamannan on the north-west and west.

Topographical Appearances.—Part of that dreary table-land which stretches across the island between the Clyde and the Forth is found on its extreme west,—while it occupies five miles of its length in descending eastward through ever-varying ridges towards the rich fields of Lothian and the luxuriant Carse of the Forth. These heights are, for the most part, crested with plantations, and embosom well-dressed fields.

Although none of them exceed the elevation of 400 feet above the sea, or of 150 from their own base, yet the remotest Grampians are seen from many points,—the towers of Stirling, Clackmannan, and Linlithgow, the shores of the Forth and the glens of the Devon. On the whole, its ever-varying surface, its widespread view of frith and plain, of mountain, wood, and tower, render its aspect unusually interesting and cheerful.

Hydrography.—In the clay soil, which occupies two-thirds of this parish, springs are deficient, and the inhabitants are dependent on water of an inferior description, taken from ponds or hollows on the surface. Many springs in the mosses are so strongly impregnated with iron, that they speedily choke their outlets with red ochre. In the gravel soils, perennial springs are plentiful and strong, sometimes impregnated with minerals, rendering them less useful for household purposes,—an inconvenience rather increased than diminished by boiling. As the parish forms an irregular ridge between the river Avon and the Carse of the Forth, its proper streams are necessarily small, such as the Hollock, the Mannel, and the Sandyford burns.

The river Avon forms the most remarkable natural feature of the parish, which it bounds for nine miles, finding the flood-mark of the Forth about two miles below it. This stream is dull, sluggish, and swampy near the source, reserving its rapids and its foam for the sport of that maturer strength in which he visits us. The first symptom of this disposition is shown on its meeting with a mass

of white sandstone at Hillend. The course then becomes more gentle, till it enters among rocks mouldering under the grey-ness of age, presenting an ever-changing outline, crested with heather and overhanging birch,—a scene befitting rather the remotest Highlands than the border of the Lothians. Still lower, where the flank of the Bathgate hills is cut off by the river between the castle of Carrubber and Muiravonside House, the banks, precipitous and wooded, are reared nearly 200 feet above the stream, till they gradually expand with that valley crossed by the towering aqueduct which leads the waters of the Union Canal towards their destination.

Scenes still more precipitous and inaccessible are to be found on the Avon, as it bursts through the high-ground of Kinneil into the alluvial flatness of the Carse.

All the rock exposed on its course is sandstone, sometimes coarse, sometimes fine-grained, at others, in thin seams, much stained with the oxide of iron,—excepting that about Muiravonside House, which seems a large detachment of the same greenstone rock that forms the crest of Cockle Rue, about a mile to the south, and three veins of trap rock, one at Redford, the others on either side of Linlithgow bridge. Away from the banks of the Avon, there are only four detached spots where rock is apparent, and its character will be better understood when we consider the minerals of the parish.

The alluvial deposits to the north-east of the canal are, sand, gravel, peat, and marl. The contortions in the sand strata are endless; and such as are fond of theories might have a new one at every fathom, or oftener, if need be, and leave much unaccounted for, after all. The variety of surface in the gravel district is quite remarkable: it appears in mounds and hillocks of every shape and direction; sometimes inclosing extensive hollows; then a considerable thickness of marl, and over that, moss. In the midst of these deposits, was found a fine specimen of the ancient elk, a horn of which is now deposited in the College Museum of Edinburgh.

To the south-west of the Canal, the whole subsoil is clay, of the stiffest texture. It has lately been trenched along five miles of its length by the Slamannan Railway, in some places, to the depth of forty feet, and exhibits very little variety,—the boulder-stones and dispersed gravel being, with few exceptions, ordinary greenstone. Rock is scarcely ever found; if at all, it is of freestone,

Soil.—The soil of the eastern district is light and gravelly, encumbered with many stones, but well inclosed and cultivated; of the west, cold and wet, excepting by the river side. Much of it is still undrained, unsheltered, uninclosed, though generally under the plough.

Quarries.—Quarries of fine-grained blue whinstone, presenting occasionally a vertical columnar fracture, are frequent; and there are two quarries of excellent freestone; that of Manuelrig, extensively wrought, having vertical fissures filled with the finest blue clay, and occasional specimens of petrified equisetum; and that of Haining having a fracture resembling marble; perhaps the finest grained and most compact specimen of sandstone that can possibly be found, retaining its angles and chissel-marks unchanged by the vicissitudes of centuries.*

Coal is now wrought only at Stanrig and Craigend; but the following strata, excepting only the uppermost coal, have been lately ascertained to prevail over the western half of the parish:—*1st*, from 5 fathoms to 10 of surface, consisting of stiff clay or rock; *2d*, from 4 feet to 5, fine coal; *3d*, 33 fathoms of rock strata and thin seams of coal; *4th*, from 2 feet 8 inches to 3 feet of fine hard coal; *5th*, 14 fathoms of rock strata and one small seam of coal intervening; *6th*, from 2 feet 6 inches to 3 feet, very fine soft coal; *7th*, 23 fathoms of rock strata and various thin seams of coal; *8th*, 1 foot 6 inches blaise or bituminous shale, containing three or four bands of ironstone, from 1 to 3 inches thick—and, 4 feet inferior coal, with frequent balls of iron; *9th*, 5½ fathoms white rock; *10th*, from 3 feet to 4, inferior coal; *11th*, 9 fathoms rock strata and various thin seams of coal, and a good band of ironstone, 10 feet above the next coal; *12th*, from 1½ foot to 3, Middlerig coal; *13th*, 5 fathoms white rock; *14th*, 2½ feet of fine coal bored, but not yet seen; *15th*, 17 fathoms white freestone, with great quantities of water, some of the stone exceedingly hard and difficult to bore. Of these, the lower strata are the widest spread, some of them having been found six miles to the southward. The dip declines gently towards east-north-east, in which direction the upper seams fall off, in consequence of the dip of the surface and a great up-dike to the north-east; and no good coal has yet been found in that direction. The uppermost coal is of partial extent, even in the

* A seam of limestone, nine feet thick, has been lately found by Mr Stirling of Muiravonside, at the foot of the bank below the canal aqueduct, promising abundant supply.

richest mineral district, being found to extend only about 30 yards round the upper pit at Stanrig, when it suddenly fails; it has been found, by boring, in another part of the parish, but not to any great extent. The next seam was the only coal anciently wrought in the lands of Parkhall and Craigend, with pits about 30 feet apart, to which it was conveyed from hand to hand beneath. Some of the under seams of coal have been wrought in the lands of Muiravonside, and these workings have lately been renewed to a considerable extent. But the troubles or whinstone-dikes in this coal-field deserve attention. The northern or universal dike passes out of the parish at Rumford, from the south-east towards Shielhill on the north-west, cutting off the whole upper seams of coal from the lower country, between Avon and Carron Rivers,—the toils of the borers being spent in vain on a mass of unfathomable sandstone. The second is parallel, nearly a mile to the south, affording good whinstone quarries at Craigend and Craigmad. The third occurs about a mile still further south, being very apparent at the Greencraig of Drumbroider; and still further south, there are appearances of a fourth, whose bearings are not yet known. All these dikes send off lateral spurs, throwing the perplexed strata sometimes up, sometimes down, to the extent of 15 or 20 fathoms, and throwing out the upper seams of coal in many places.

The iron wrought by the Carron Company near Maudiston is of the finest, but dispersed over a considerable bulk of ore. Considerable quantities of iron have been wrought in the lands adjoining to Maudiston; and there can be no doubt that a very great breadth of valuable ironstone remains to be wrought in the parish; but unfortunately the coal under the ironstone is so very inferior in quality, that it is quite unsaleable at present.

The only foul air known in the coal-pits is choke-damp or carbonic acid gas. It rises most when the barometer falls. On the night of the 27th November 1838, when the Tiviot and other streams disappeared from their channels, the rush of this air into the coal-pits was greater than the oldest miners ever knew of in this district.*

Zoology.—In no quarter are the blackbird and the thrush more numerous, or the chorus of birds of song more full than, in the woods of Almond; neither are the daw, the magpie, and the jay wanting. Foxes, also, are supposed to live in numbers near us.

* I beg to express my obligation to William Johnstone, Esq. of Meadowbank, for his obliging communications regarding the coal strata of the parish.

Botany.—The whin, the broom, the wild-rose, and the honey-suckle were the great possessors of our eastern soil, about half a century ago, when they yielded to the improving skill of the late Mr Forbes of Callendar, in whose ample farm roads they still abound. Such a thicket was the country then, that, when cattle were once turned out, it was no easy matter to trace them in their wanderings; but the example of that landlord, and access to Edinburgh manure by the Canal, have entirely changed the botanical aspect of the parish.

II.—CIVIL HISTORY.

In several returns of the earldom of Linlithgow, which were made in the seventeenth century, this parish is reckoned among its patronages, and it is declared in ancient times to have been annexed to the parish of Falkirk. The date of disjunction is unknown; but the names of Bruce, Urie, Campbell, Bennet, Boyd, Bertram, and Macall, ministers, predecessors in the church of Moranside, from 1660 till 1834, attest its independent existence throughout the greater part of Protestant times. It is named a separate parish in 1606, the date of the oldest presbytery record.

The origin of the most ancient remains in the parish is involved in deep obscurity. They consist of a series of fortified eminences, extending from Harlelaw, near Easter Manuel, by Castlehill, to Sight Hill. The last two present a steep face of about 150 feet in height to the valley of the Avon, upon which a triple trench had been formed, presenting now the appearance of three parallel roads towards the north-east, as if the attack were expected from that quarter. Whether they were raised by the original Celtic inhabitants against Danish invaders from the Lothians,* or to retard the advance of the Romans or the Scots towards Camelon, long defended against both, † it is impossible now to determine with any certainty. The quantity of stone-coffins found at Linlithgow Bridge, Castle Hill, Sight Hill, and Brakes, on the flanks and in the rear of these defences, leave no doubt that the place was one of carnage. It is not believed that any remains decidedly Roman have been found nearer than Justing Haugh, half a mile to the eastward of Avon.

At Ballenbriech, on the Avon, three miles to the westward of the parish church, there are ruins, as tradition says, of a Popish chapel. Those of Manuel are sufficiently known to have belong-

* Chalmers's Caledonia.

† Holinshed.

ed to a convent of Cistercian nuns, founded by Malcolm IV. in 1156, consecrated to the Virgin; yet the name seems to indicate a prior settlement by the Culdees, to whom the name Emanuel was dear. Its revenues were increased by succeeding sovereigns, and in 1292, the prioress, Christiana, and in 1296, her successor, Alice, swore fealty to Edward I. at Linlithgow.

The history of the Castle of Almond is more obscure. It was anciently known by the name of Haining, or more rarely Manuel, and seems to have owed its origin to the Crawfurds of Haining, a family of note in the reign of James III., one of whom was Abbot of Holyrood, and Treasurer of Scotland, under that sovereign. The stag's head and antlers, which formed the crest of their armorial bearings, show their descent from that Crawford who rescued King David from the deer, on the spot where Holyrood now stands. This much is certain, from the retour of Agnes Crawford, whose marriage in 1540 transferred the castle to the family of Livingstone, that it was then a manorial residence of note. In that family it continued till, in 1693, the name of Almond was given to it, and Sir James Livingstone, second son of the first Earl of Linlithgow, was created a baron by that title. However, although it became the ground of this title, and appears very frequently as held for the Crown by the Earls of Linlithgow, the Castle of Almond was possessed, for about two centuries, by the descendants of Thomas Livingstone of Haining, a cadet of that noble family, with which the Learmonths of Parkhall and Craighend, in the neighbourhood, are doubly connected by marriage. About the middle of last century, it ceased to be inhabited; and still remains a fine specimen of the strength and durability of the materials and masonry of ancient times.

Of more recent date is Linlithgow Bridge, built by Alexander Earl of Linlithgow, about the year 1650, as appears by a grant of its customs to Earl George, by Charles II., in 1677. Contrasting with these, are two of the finest bridges reared in modern times, one bearing the Union Canal, and the other the Edinburgh and Glasgow Railway, over the river and valley of the Avon. The first is of twelve arches, some of which look down one hundred feet upon the stream,—and so covered are the banks with foliage, that the mighty fairy-like work seems resting on green leaves. The second, for the railway, consists of more than twenty arches, all of fair proportion, and substantial masonry.

A mile above Manuel, is a place named Fechtin Foord, traditionally reported as the scene of a feud between the shepherds of the opposite banks; and to the northward two circular eminences, rounded by art for purposes unknown.

Land-owners.—William Forbes, Esq. of Callendar, late Member for the county, is principal land-owner; and, although not resident himself, does all to remedy that disadvantage, by his liberality to the poor and parochial institutions of the parish. There are thirty-six proprietors of estates, or parcels of land, in the parish. Several of the last inherit the perpetual feus granted by the last Earl of Linlithgow, in order to raise money for carrying on the Rebellion of 1715. Twenty-one are resident; seven of independent fortune.

III.—POPULATION.

Amount of population in 1801,	.	1070
1811,	.	1330
1821,	.	1678
1831,	.	1540

The actual population cannot be short of 1700, including from 200 to 300 strangers at work on the Slamannan Railway. Indeed, the immense fields of coal now proved to lie within the parish, and the increasing facilities of export, make it unlikely that it should ever fall below that number. If we except twenty-five families of colliers lately settled, and an unusually large proportion of masons, the population is entirely agricultural, interspersed with the necessary tradesmen.

The number of families settled is 300.

There is one insane person under restraint; three too weak in mind to be employed in labour.

The people are industrious, sober, and kind, especially to others in distress.

IV.—INDUSTRY:

Agriculture.—The whole parish is arable, excepting plantations and mosses, not probably amounting to a twentieth part. The average rent per acre about L. 1, 12s.

Sheep is a rare stock, the fences not containing them; for the same reason, cattle are uniformly herded in the day, and housed at night, in the west. In the eastern division, the quality of stock is excellent; and they are turnip fed through the winter to a considerable extent, and have fences sufficient for their pastures. There also, the system of husbandry is good; and furrow-drain-

ings extend to the westward, where it is much needed. Police dung from Edinburgh is employed to a great extent. Lime also from the neighbouring parish of Linlithgow, is largely used. The farm-buildings are much improved, being adapted in the east to farms of 300 or 400 acres; in the west, to 40 or 50. In the small farms, the want of shelter and inclosure and capital is great.

The farms in the eastern district are generally allotted into five parts,—two in grass, one in green crop, one in wheat or barley, one in oats. The grass, including hay, may be reckoned at L.5; green crop L.16; the grain at L.6 per acre; and though the system of farming to the westward is various, and the soil inferior, the extent of surface may render its produce double.

The gross annual produce may be stated thus: Grain, L.20,000; green crop, L.10,400; hay and grass, L.7850; in all, L.38,250.

V.—PAROCHIAL ECONOMY.

Market-Town.—Falkirk, though five miles distant, is the market-town for the parish, rather than Linlithgow, which is distant but three. Maudiston, hanging in picturesque confusion on the slope of its hill, and by the sides of its bridge, is the principal village. Our means of communication are ample. The Stirling and Edinburgh road, the Union Canal, a railway nearly finished by Slamannan to Glasgow, another commenced between Glasgow and Edinburgh, all intersect the parish.

Ecclesiastical State.—The church and manse were built within these thirty years, and are sufficient and in good repair; but the former, being within two miles of the east end, and six of the west, is, especially in bad weather, inaccessible to many. It may accommodate 600. The glebe is worth L.12 a year. The stipend, chiefly money, from L.240 to L.260. The attendance at the parish church is good; in that of the United Secession, small; one-sixth of the population only dissenting. Our communicants are 280 in number. Church collections, L.50.

Education.—There are two schools. The parish school has the maximum salary, a glebe of 6 acres, and 100 well taught scholars, several in Latin, and the greater part learning reading, writing, arithmetic, grammar, and geography. The second school, with an excellent free house at Avonbridge, is under the control of the parents of the children attending; it is at present flourishing.

Library.—There is a parochial library of 120 volumes.

Poor.—There are 14 paupers, receiving from 4s. to 12s. a

month. Occasional relief is given to others. Amount of income, L. 80 a year. Several consider the occasional relief degrading. The average yearly amount of assessment for the years 1835, 1836, and 1837, was L. 37, 14s. 8d.

Inns.—There are 6 public-houses.

Fuel.—Peats are sent to the neighbouring distilleries in considerable quantity; but coals are generally used in the parish.

MISCELLANEOUS OBSERVATIONS.

The progress of cultivation has entirely changed the appearance of the parish, since the date of the last Account. At that time, it would seem every one sought to grind his own meal. There were 17 mills within the parish: now, there is but one corn and flour-mill, one saw and two flax-mills. The feudal oppression which bound the vassal to the superior's mill is now not heard of. The access to markets and superior mills is much increased; and no district has improved more rapidly under the superior means of communication which the age affords.

April 1841.

PARISH OF LOGIE.

PRESBYTERY OF DUNBLANE, SYNOD OF PERTH AND STIRLING.

THE REV. WILLIAM ROBERTSON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name Logie is of very common occurrence in Scotland. It is said to be derived from the Gaelic *Lag* or *Laggie*, signifying low or flat ground.

Extent.—The extreme length of the parish from north to south is between 6 and 7 miles; and its extreme breadth from east to west, about 6.

Boundaries.—It is bounded on the north, by the parish of Dunblane; on the south, by the river Forth, which divides it from the parishes of Stirling and St Ninians; on the west, by Lecropt and Dunblane; and on the east, by Alva and Alloa.

Topographical Appearances.—The shape of this parish is very irregular, owing to the windings of the Forth, which forms its

southern boundary. From the Forth to the foot of the Ochil hills, the country is a dead level, of rich and highly cultivated carse ground, presenting a remarkable and pleasing contrast with this bold and almost perpendicular range of hills, rising suddenly from the plain to the height of 2500 feet. In the parish of Logie, the Ochils are almost entirely destitute of wood, except in the immediate vicinity of Airthrey Castle; but their lofty and precipitous front, stretching in one long unbroken chain from west to east, clothed with rich pasture, interrupted by rugged precipices and bare rocks, presents to the eye one of the most picturesque and beautiful mountain ranges to be found in Scotland. The most remarkable peak in this parish is Demyat, well known to the tourist as commanding one of the most extensive and finely diversified views in the kingdom. From its summit, the Forth, the chief of Scottish rivers, may be traced almost from its source in Loch Ard, as far as the German Ocean. Edinburgh is distinctly seen, and it is even said that the coast of Ireland is sometimes visible. The well known windings of the Forth, and the more humble, but hardly less picturesque meanderings of the Devon, "Stirling's ancient tower and town," the ruins of Cambuskenneth Abbey, and the beautiful domain of Airthrey Castle, form the most striking objects in the immediate foreground, while the view on the north and west, bounded by the lofty summits of the Grampians, extends on the south as far as the hills of Peeblesshire.

Climate.—The climate of the low lands of the parish of Logie is peculiarly mild and healthy, on which account, as well as for the benefit of goat-whey, the village of Blair Logie and its neighbourhood, at the foot of the Ochils, have long been a favourite resort for invalids in spring and summer. The mountainous district of the parish (which is inhabited by only five or six families,) enjoys a much keener, though not less healthy atmosphere. The improvement of agriculture has tended, in a remarkable degree, to improve the general healthiness of the district. The land being thoroughly drained, and brought into the highest state of cultivation, ague, and other distempers, endemic in wet marshy situations, and formerly very prevalent in this country, have entirely disappeared; while the great number of inhabitants who reach a very advanced period of life, afford the best proof of the salubrity of the climate. Infectious distempers are but little known, and even the

cholera, which made great ravages in the neighbouring districts, never spread itself in this parish.

Hydrography.—The Frith of Forth, which bounds the parish on the south, is navigable for vessels of considerable burden as far as Stirling, at high tide, forming one of the most important means of inland water communication in the kingdom. The water is thick and muddy, the banks low, slimy, and covered with reeds and sedges.

The Devon and the Allan, which bound the parish on the east and west respectively, have been rendered classic streams by Burns and Scott. The Devon, near its source among the Ochils, is a very romantic stream. Its course is peculiarly circuitous and winding. After having made the circuit of the whole range of the Ochils, it falls into the Forth at Cambus, in the parish of Alloa, almost directly opposite the spot where it rises on the opposite side of the hills. The parish is well watered by numerous mountain streams, and springs of the finest water.

The only piece of standing water is a beautiful little artificial lake in Airthrey Park.

Airthrey Mineral Spring.—The mineral spring now so celebrated, and so much resorted to by invalids, rises on the estate of Airthrey, on the high grounds above the village of Bridge of Allan. It was discovered in the course of working the Airthrey copper mine, from the sole of which it springs. The miners, conceiving it to be a common salt spring, made use of it for culinary purposes, and gave it a decided preference to all other water. There are four springs in all, though Dr Thomson of Glasgow, owing to some mistake, which I have not heard accounted for, has given analyses of six distinct springs. "Of these four springs, numbers 1 and 2, (commonly called the Weak Water,) are conveyed into the same reservoir and used together; No. 3, the Strong Water, is used alone; and No. 4, which issues from the rock on the western wall of the mine, is not used. It is a scanty spring, termed the Black Spring, in consequence of its depositing in the natural basin, into which it is received, a black substance, which has not been examined." (Forrest's Report.) The following is a copy of the results of Dr Thomson's analysis, as published in the Airthrey Table in the pump-room :

"Springs, No. 1 and 2; specific gravity, 1.00714. 1000 grains contain,

Common salt,	.	.	5.1 grains.
Muriate of lime,	.	.	4.674
Sulphate of lime,	.	.	0.26

13.034

One pint contains,

Common salt,	.	.	37.45 grains.
Muriate of lime,	.	.	34.32
Sulphate of lime,	.	.	1.19

73.68

“ Spring, No. 3; specific gravity, 1.00915. 1000 grains contain,

Common salt,	.	.	6.746 grains.
Muriate of lime,	.	.	5.826
Sulphate of lime,	.	.	0.716
Muriate of magnesia,	.	.	0.066

13.374

A wine pint contains,

Common salt,	.	.	47.534 grains.
Muriate of lime,	.	.	38.461
Sulphate of lime,	.	.	4.715
Muriate of magnesia,	.	.	0.450

89.160

“ Spring, No. 4, (as before-mentioned not used, and on which account not mentioned in the Airthrey Table) ; specific gravity, 1.00984; contains,

Common salt,	.	.	537.567 grains.
Muriate of lime,	.	.	282.769
Sulphate of lime,	.	.	26.064
Muriate of magnesia,	.	.	2.438

848.858

“ On the 18th November 1830, the temperature of the water of spring No. 3, as it issues from the rock in the mine, was 51.°25. At the same time the temperature of the air of the mine was 52°. The temperature, as it falls from the pump in the pump-room, about an hour after the preceding observations in the mine, was 49.°25, the air of the room being at the same time 49.°50. The quantity of water delivered by this spring in twenty-four hours was, on the 18th November 1830, in round numbers, 1260 imperial gallons ; and the tacksman informs me that the supply is not much affected by the seasons. The water is transparent and colourless, and destitute of smell. Its taste is bitter and unpleasant.

“ On the same day, the average temperature of the two springs, Nos. 1 and 2 was 50°, the temperature of the mine being 52°.

The temperature of the water as it fell from the pump, 47°.50. The quantity of water delivered by these springs in twenty-four hours, was 360 imperial gallons. The tacksman, however, states, that this supply is far below the average; and he attributes the deficiency to leakage in the pipes. He thinks that, in general, the supply of the weak water equals that of the strong. The weak water, like the strong, is transparent and colourless, and destitute of smell. Its taste, though rather bitter, is by no means unpleasant." (Forrest's Report.)

The value of these springs, in a medicinal point of view, is unquestioned. Considered as a saline aperient, the Airthrey waters far surpass those of Pitcaithly and Dunblane; and are only inferior in the amount of their impregnation to some of the springs at Cheltenham and Leamington. "It may be even doubted," says Mr Forrest, "if they are not entitled to take precedence of these springs." As a remedy for scrofula, the same gentleman ranks them second only to the waters of Pitcaithly, on account of their richness in muriate of lime; and the Airthrey spring, No. 4, he considers as decidedly superior even to these last mentioned in this point of view. But, if the value of a mineral water is to be inferred not only from the facts furnished by its chemical analysis, but also from experience of the benefits arising from its use, the Airthrey springs must be placed in the very highest rank among the mineral springs of Great Britain. Every season adds to their reputation; and, in defiance of all the inconveniences of very indifferent accommodation in the neighbouring lodging-houses, the numbers that repair thither in search of health are every year rapidly increasing. It is much to be regretted that both the lodging-houses, and the pump-room itself, are still in a style so little corresponding to the increasing fame of the waters, and the number of visitors.* I am told, that, during the present season, nearly 500 persons have drunk of the waters in one day; and numerous families are every year obliged to return home for want of accommodation, even of the meanest kind. The pump-room is small and mean. A very neat building, in the cottage style, has, however, been lately erected by Lord Abercromby, and conveniently fitted up with hot, cold, and shower baths. It is great-

* Since the above was written, the accommodation at Bridge-of-Allan has been much improved, by the erection of a considerable number of very comfortable lodging-houses; and, as the increase of visitors seems fully to keep pace with the increase of accommodation, we may expect that more will be built shortly.

ly to be wished that some enterprising individual would establish an hotel, after the model of those at Harrogate or Pitcaithly, which, if properly managed, could not fail of making a very considerable return. For a more particular account of these springs, and of the particular diseases in which they have been found beneficial, the reader is referred to the very distinct and circumstantial Report, already so often quoted, by Mr William Hutton Forrest, surgeon in Stirling.

For the following account of the Geology and Mineralogy of the parish, I am indebted to the kindness of Robert Bald, Esq. Civil-Engineer.

Geology.—This parish, in a geological point of view, is divided into two distinct portions, both as regarding the alluvial covers or deposit above the rocks, and the rocks themselves. This line of division runs in an east and west direction. Upon the north side of this line are the Ochil Hills, and on the south side of it is the arable land declining to the river Forth.

The Ochils are composed of trap rocks, generally supposed to be of volcanic origin. The beds are of various thickness, nearly vertical, having their dip to the south. The veins in them run in a northerly direction, with a few exceptions.

The rocks under the land to the south of the Ochils, and in contact with them, are of the coal formation, being a continuation of the Clackmannanshire coal-field, which commences about a mile east from Dollar, at the foot of the Ochils. No trials of any extent have been made for coal in this parish; and there is very little hope of finding any of a workable thickness, because it is evident that the strata belong to the lowest series which compose the great coal-field of Scotland.

The rocks of this formation not having been laid open at the foot of the Ochils, no account can be given of the dip next their face; but there is every reason to conclude, that, as they are a continuation of the Clackmannanshire coal-field, which, along the face of the Ochils, is of a trough shape, the strata here will dip and rise in the same manner, that is, they will rise quickly to the north, along the foot of the hills, and, forming a trough to the south, will there rise with a moderate inclination to the south. It is evident that the western end of the trough is in this parish, as the coal strata are seen rising to the west, near Causewayhead.

The Ochils, being of trap rock, are various in their composi-

tion, hardness, and colour. The amygdaloid rock is abundant, with agates and calc-spar of a globular form disseminated. Along the face of the hills, and particularly to the westward, is a thick bed of conglomerate rock, or breccia, having a dark-brown coloured arenaceous base, in which are imbedded fragments of trap rock, chiefly angular.

The coal formation rocks are chiefly sandstone, of various shades of white and red, with alternating beds of slate-clay, in which are found beds and balls of common clay ironstone. Some thin beds of coarse limestone are also found.

In the midst of these strata of the coal formation, where they rise to the west and form the west end of the trough or basin, rises the remarkable rock known by the name of Abbey Craig. It is a trap rock, and of that kind denominated greenstone. It rises from the east to the west, at an inclination of about one in four, and terminates in a very abrupt craggy precipice of about 500 feet in height from the plain. From the foot of the precipice there is a sloping foot or glacier of about half of the height, and this slope is covered with very large boulders, and immense masses of the rock which have fallen from the precipice. This rock of Abbey Craig is, in every respect, both with regard to texture, general form, and dip, precisely similar to the Stirling Castle and Craighforth Rocks, in the immediate vicinity.

The natural divisions or fissures of the Abbey Craig Rock are the same as in all greenstone rocks, that is, they are at right angles to the sole or bed on which it rests; so that the precipice presents a rude columnar form.

The greenstone rock does not compose the whole height of Abbey Craig from the plain on the west, it being only about 250 feet thick, or nearly the half of the whole height. The strata found under it are composed of the various coal strata before-mentioned. Here some trials have been made for coal and limestone; the latter, of a coarse quality, was found; also argillaceous ironstone, but no mineral of a workable value. It is, however, thought, from the analogy of similar strata, that a workable limestone may be found in this quarter.

The greenstone is composed of felspar and hornblende, and, when broken, presents a rough crystallized appearance.

With regard to organic remains, none have been found in the Ochils. This circumstance constitutes one of the chief discri-

minating characters of this class of rocks. In the coal formation adjoining, the usual organic remains have been found.

The only ore found in this parish, and wrought to some extent, is copper. It was found in veins.

The simple minerals, found in the trap rocks are, small rock crystals, calc-spar, heavy spar, ironstone, agates, felspar, and hornblende.

The alluvial deposits upon the Ochils are chiefly composed of the debris of the rocks, mixed with sandy loam and gravel; and at the foot of the Ochils, from the village of Menstrie to the westward of Airthrey Castle, are undulated banks, mounds, and knolls of loam, sand, and gravel, in which are occasionally large boulders. This deposit of gravel appears to have been occasioned by the opening which had once existed betwixt the Abbey Graig and the Ochils. All the alluvial deposits south of the face of the Ochils, and those mounds of gravel, are of a more recent formation than that before-mentioned, being evidently formed by the tides in the River Forth. In Scotland, this deposit is known by the name of carse land, and is very fertile. The surface has a declination to the River Forth, quite imperceptible. In the eastern part of the parish, it reaches to the rocky foot of the Ochils, from which they rise abruptly without any intermediate deposit. This alluvial deposit is of very various depth. Bores have been put down above 30 feet before reaching the rock; but in all the bores put down to the south of Abbey Craig, no rock has been found; indeed, there is reason to conclude that it is of a very great depth.

The upper part of this deposit is a strong adhesive clay, from three to six feet in thickness, under which is a very soft silt or sleech of a dark bluish-black colour. In this silt is uniformly found a bed of sea-shells mixed with sand. The varieties of these are the same as those found recently at Leith; but the most numerous are those of the common oyster, mussel, and cockle. This bed of shells extends for miles both to the east and west of Abbey Craig.

The most remarkable animal remain found in this parish, in this deposit, was the entire skeleton of a whale, which, according to the measurements which were made, must have been fully seventy feet long. It was found in the year 1819, in the course of some draining operations carrying on by the late Sir Robert Abercromby in the estate of Airthrey. The place where it was found was adjoining the south side of the turnpike-road east from the eastern porter's lodge, which leads to Airthrey Castle, and near to the north

verge of the alluvial deposit of the River Forth. The bones were, in general, hard and undecayed, and lay in regular connected order from the head to the tail. They were imbedded in the blue silt immediately under the stiff clay. It was found, from very accurate levels taken, that this skeleton lay twenty-two feet higher than the pitch of the present highest stream-tides of the River Forth, immediately opposite. From which circumstance there is reason to conclude, that the highest tides of the River Forth are, in this district, at least twenty-six feet lower than they were at the time when the whale was stranded; and it is evident that this must have been many centuries before the Romans invaded this country, as there was till lately upon the side of the Forth, near the farmhouse of the manor, a Roman fort,—and the Manor Ford, which had been connected with the fort, and formed of loose stones, remains to the present day. These circumstances prove, that the Forth has not changed its course in this immediate district for an immense period of years.

Sir Robert Abercromby was at all due pains to have the bones very carefully dug up, and carried to a safe place in his court of offices; and then, in the most liberal and polite manner, presented the whole to the museum of the Edinburgh University. The immense canine-bone and ribs, and a few of the vertebræ, are to be seen at the head of the lower room of the museum. It is remarkable that one of the ribs had been broken and knit again, as the bone is much thicker at that place.

Several veins have been opened and explored in this parish, in search of copper in the Ochils, but none yielded copper in any quantity, excepting the vein at the Mine House. The vein is in the conglomerate or breccia rock; it runs in a northerly direction, and was drained by a day level, carried up from the flat alluvial land, the mouth of which is on the north side of the turnpike-road, and immediately adjoining it. The late Williams, the mineralogist, visited this mine, many years ago; and he states in his works that the appearances of copper were good in the sole of the mine; but the vein can be wrought no deeper without the aid of machinery.

About forty years ago, this copper mine, after having been for a long time abandoned as an unprofitable adventure, was opened by the Caledonian Mining Company, and wrought with considerable enterprise and spirit. After they had accumulated a quantity of dressed ore, and the vein appearing favourable for being productive, they erected at Alloa smelting-furnaces, where excellent

copper was produced ready for the manufacturer ; but the promising appearances failed, and, after much loss, the adventure was given up and the furnaces taken down.

Both yellow and grey copper ores were found, but chiefly the yellow ; the accompanying minerals were calc-spar and heavy-spar.

The ironstone found in the coal formation was the common argillaceous kind, which yields about 30 per cent of iron.

There are a few open quarries in this parish. One is of sandstone near Causewayhead, but the stone is only fit for very inferior purposes. There are several quarries in the Ochils for stones, suitable for making and repairing of roads ; and a quarry at Abbey Craig has been wrought for a long period of years, not only for the making of roads, but for gate-posts and masonry. It is particularly to be noticed, that those portions of it which, when broken, present a rough crystallized surface, have been extensively used for the grinding of wheat.

As the chief supply of mill-stones used in the kingdom, for the manufacture of flour, was imported from France, it was with the greatest difficulty they could be procured during the long war with France, and that at a most enormous price,—on which account, the Society for the Encouragement of Arts, London, offered a premium of L.105 to the person who would find in Great Britain a rock, from which mill-stones could be made for the manufacture of flour, as a substitute for the French mill-stones, known by the names of Bhurr-stones.

The Abbey Craig rock, on account of its rough surface when broken, was thought by James Brownhill, miller at the Alloa mills, to be suitable for the manufacture of flour ; and from it he made a pair of mill-stones, the first which ever had been made from that species of rock. These, when brought to trial, produced flour in every point equal to that produced from the French mill-stones. A pair of the Abbey Craig mill-stones were sent to London, and the Society of Arts were so fully satisfied with the execution of these stones, and the quality of the flour produced, that they awarded their premium of L.105 to James Brownhill for the discovery.

The Abbey Craig mill-stones are built or composed of a number of pieces, similar to the French mill-stone. They have a very uniform cutting surface, but require to be more frequently picked or dressed than the French stones ; but a very slight dressing is necessary and is quickly done. They require no alum, whereas the numerous large cells, with which the French mill-stones abound,

required to be filled with melted alum every time the stones are dressed, which is a constant expense.

More than three hundred pairs of these mill-stones have been made from the Abbey Craig rock, both for the manufacture of flour and for distillery purposes, for which they are also peculiarly suitable; they cost from L. 12 to L. 20 a pair, at the time a pair of French mill-stones cost from L. 45 to L. 60; but since the establishment of peace with France, the French mill-stones have fallen very low in price, while the cost of the Abbey Craig stones remains the same as formerly, so that there is now comparatively little demand for the latter.

Zoology.—The zoology of this parish differs but little from that of the rest of Scotland. The Ochil hills abound in rabbits. Foxes are not numerous. Game of the ordinary sorts is abundant. There are a good many grouse to be found on the hills, and a few pheasants on the low grounds and plantations. Squirrels are very numerous in the woods of Airthrey. Hawks of various kinds are to be met with, and the blue hunting falcon occasionally makes his nest on Dunmyat. Deer are to be met with on the hills, but they are not numerous. The hill streams abound in trout; and both the Devon and Allan are frequented by lovers of the angle. The salmon of the Forth are well known; but there is no fishing-station in this parish.

Botany.—The following list of rare or interesting phænogamous plants found in the parish of Logie, is copied from Mr Forrest's Report, formerly alluded to:

<i>Agrostis canina</i>	<i>Lysimachia Nummularia</i>	<i>Gnaphalium germanicum</i>
<i>Vaccinium uliginosum</i>	<i>Sedum villosum</i>	<i>Saxifraga granulata</i>
———— <i>Oxyccocos</i>	<i>Juncus glaucus</i>	<i>Anthyllia vulneraria</i>
<i>Solidago Virgaurea</i>	<i>Agrimonia Eupatoria</i>	<i>Malva moschata</i>
<i>Poa aquatica</i>	<i>Reseda Luteola</i> *	<i>Lychnis viscaria</i>
<i>Sparanium simplex</i>	<i>Mentha rubra</i>	<i>Cistus helianthemum</i>
<i>Symphytum officinale</i>	<i>Tanacetum vulgare</i>	<i>Epilobium angustifolium</i>
<i>Sium latifolium</i>	<i>Ribes nigrum</i>	<i>Arenaria verna</i>
<i>Briza media</i>	<i>Ononis arvensis</i>	<i>Echium vulgare</i>
<i>Juniperus communis</i>	<i>Scrophularia nodosa</i>	<i>Cichorium Intybus</i>
<i>Ulex nanus</i>	<i>Aster Tripolium</i>	<i>Chrysanthemum segetum</i>
<i>Fumaria claviculata</i>	<i>Valeriana officinalis</i>	<i>Scabiosa arvensis</i>
<i>Scirpus pauciflorus</i>	<i>Caltha palustris</i>	<i>Asperula odorata</i>
<i>Convallaria majalis</i>	<i>Digitalis purpurea</i> †	<i>Rosa arvensis</i>
<i>Anagallis arvensis</i>	<i>Atropa Belladonna</i> ‡	<i>Geum urbanum</i>

* This plant is found in great abundance at the foot of Dunmyat. It was used in dyeing woollen stuffs of a yellow colour.

† The variety with the white flower is found on the Ochils near Menstrie.

‡ Abounds on the Abbey Craig. The berries of this plant are highly poisonous. The effects are best counteracted by drinking freely of vinegar.

Geum rivale
Punus Cerasus

Geranium pratense
———— dissectum *

Sedum reflexum †
Mimulus luteus ‡

The principal plantations are on the estate of Airthrey on the Ochils, and are in a thriving condition. There are no very ancient trees.

II.—CIVIL HISTORY.

As might be expected from its neighbourhood to the important fortress of Stirling, the parish of Logie is not deficient in the glories of old days. It was the scene of one of the most splendid victories of the Scottish patriot, Wallace, the battle of Stirling, September 13, 1297. It was on the hill called Abbey Craig that the Scottish army was posted the night before the engagement, and the scene of action itself appears to have been about the place now called Corntown.

Eminent Men.—Of important events within the memory of man, Logie has little to boast; but there are some names connected with the parish of which it may well be proud. The Earls of Stirling were originally barons of Menstrie, in this parish. They are mentioned in history so far back as 1505. The first Earl of Stirling was William, sixth Baron of Menstrie, born in 1580. He was an accomplished scholar and poet, and much esteemed by James VI., from whom he received the honour of knighthood. In 1621, he obtained a grant of extensive lands in North America, and settled the colony of Nova Scotia. Charles I. appointed him Lieutenant of Nova Scotia, gave him a power of selling that territory in lots of not more than 150 individuals, who were to be invested with the title of Baronet, and rank above all knights, except the *Equites aurati*. His Majesty conferred upon him also the privilege of coining a small copper money called "*Turners.*" He was made a member of Privy-Council, Secretary of State, Keeper of the Signet in Scotland, Commissioner of Exchequer, Senator of the College of Justice: and at the coronation in Holyrood House, June 1633, was created Earl of Stirling, Viscount Canada, Lord Alexander of Tillibody, to his heirs-male. He died in London, on the 12th February, and was interred in Stirling on the 12th April 1640. He acquired considerable reputation as a poet. Be-

* Is very abundant in the fields. In 1827, the hay crop in this neighbourhood was very much injured by this plant. It had evidently been sown with the seed.

† A specimen of this plant is growing on the roof of a house in the village of Causewayhead beside *Sempervivum tectorum*.

‡ (*Flora Americae Septentrionalis*, p. 426,) is found on the banks of the Forth below Causewayhead, at a great distance from gardens, and perfectly naturalized.

sides love sonnets and a variety of smaller pieces, he published tragedies under the title of "Elegiac Dialogues for the Instruction of the Great." His "Parœnesis or Exhortation to Government," addressed to Prince Henry, is a poem of no common merit. His largest production, a sacred poem, entitled "Doomsday," was finished 1614. Speaking of his works, Mr Addison observes, "I have read them over with the greatest satisfaction."

Alexander Hume, minister of Logie, appears with some degree of distinction among the early Scottish poets. He was the second son of Patrick Hume of Polwarth, from whom the noble family of Marchmont derived its lineage. (Wood's Peerage, Vol. ii. p. 178.) He is supposed to have been born about the year 1560, and to have been partly educated in the University of St Andrews. He was originally destined for the Bar, and he followed the usual method of preparation by completing his studies in France; but, being disgusted with the profession of a lawyer, he afterwards endeavoured to obtain preferment at Court, where his elder brother, Patrick, who was likewise a poet, possessed considerable influence. In an epistle written when he was thirty years of age, and addressed to Dr Moncrieff, Physician to the King, "his tender friend, Moncrieff, mediciner," he communicates several particulars of his early history. His experience of the Court was not more satisfactory; and, having finally directed his views to the church, he was appointed minister of Logie in the year 1598. Here he remained till the period of his death, 4th December 1609. Hume is the author of a volume, printed by Robert Waldegrave, under the title of "Hymnes, or Sacred Songs, wherein the right use of Poesie may be espied. Whereunto are added the experience of the author's youth, and certaine preceptsserving to the practise ofsanctification." Edinburgh, 1599, 4to. This volume has been reprinted as a contribution to the Bannatyne Club. Edinburgh, 1832, 4to. These poems, which are dedicated to Lady Culross, are creditable to the moral and religious feelings of the author, nor are they altogether destitute of energy. They cannot, indeed, be commended as containing much that deserves the name of poetry, but they are at least superior to most of the pious effusions of that age. His sacred songs are eight in number, including a poem chiefly descriptive of "the Day Estival;" and another on the defeat of the Spanish Armada. His description is rather equable and pleasing than vivid and striking. The Day Estival was inserted by Dr Leyden in his collection entitled Scottish Descriptive Poems,

with some illustrations of Scottish literary antiquities. Edinburgh, 1803, 8vo. It may likewise be found in Mr Campbell's *Specimens of the British Poets*, Vol. ii. p. 238. Hume appears to have maintained an exemplary character as a clergyman. In Row's *MS. History of the Church of Scotland*, he is enumerated among "those godlie and faithfull servants," whom the author had himself known, and who had "witnessed against the hierarchy of prelates in this kirk."

But the name that reflects the highest honour on this parish as the place of his birth, is that of General Sir Ralph Abercromby, the hero of Aboukir, who was born at the family seat, at Mentieth, in 1734. His baptism is registered in the parish record, bearing date October 26, 1734. Of one whose fame is so widely spread, it would be idle to speak here. He is numbered among the best and bravest of Britain's many good and brave, and his memorial is the history of his country.

The principal resident landed proprietors are, Lord Abercromby, and Thomas Buchanan, Esq. of Powis.

Parochial Register.—There has been no register of deaths or burials kept in this parish, except in the years 1761 and 1763. Baptisms have been recorded on application (which, however, has been too much neglected,) since February 12, 1688; and the record of proclamation of banns opens on January 17 of the same year. The session records have been regularly kept since 15th August 1688.

Antiquities, &c.—These may be briefly enumerated, viz. two of those large upright stones, to be found in various parts of Scotland, intended, probably, to commemorate some battle or event long since forgotten. They are situated in Airthrey Park, about quarter of a mile distant the one from the other. One is about 10½ feet in height, (of which upwards of 2½ feet are under ground,) and 8½ feet in girth. The other is 9 feet 4 inches high above ground, and 14 feet 9 inches in girth.

2d. The remains of a Pictish fort on Castle Law, one of the Ochils; or rather the tradition of such a fort, for the traces of its existence are hardly distinguishable.

3d. A Roman ford and causeway across the Forth at Manor.

4th. Above fifty years ago there was found a number of spear-heads under some stones at Abbey Craig. They were composed of a kind of bell metal, or brass, and it was concluded they were of Danish manufacture. One of these, however, at present in the

possession of Lord Abercromby, is so beautifully and tastefully constructed, and unites so much elegance of shape with strength and lightness, as to suggest the idea that it must be either Roman or Grecian.

Some years ago, when a part of the Roman causeway already alluded to was broken up, a singular old horse-shoe was found; and in various places along the front of the Ochils sepulchral urns with bones have been dug up; also stone and bronze battle-axes.

There is a traditional report, that the last coinage of *Scotch bowbees* was of the copper from Airthrey mines.

III.—POPULATION.

In 1831, the population was estimated at 1943. This, however, does not include the village of Abbey and its district, comprehending a population of 216. The Abbey district is at present considered part of Stirling parish; but there is reason to believe on very insufficient grounds; and there is an action pending or preparing with the view of recovering it to the parish of Logie. Though the writer considers it an integral part of this parish, he has omitted taking any notice of it in the present account, as it will probably be included in the account of the parish of Stirling.

Exclusive of this district, the number of the population residing in villages is 1242, and the remaining 700 in the country.

It would be difficult to fix the average of births, as many parents make no application to have the names of their children registered. The yearly average of those registered for the last seven years is 12. There is no register of deaths kept in the parish. The average number of marriages is 18.

Number of families of independent fortune residing in the parish, 2. Number of proprietors of land, 28, nearly all of whom draw upwards of L. 50 a year from their property. Number of insane sent from the parish to the Glasgow Lunatic Asylum, 3; fatuous, 2.

Character of the People, &c.—The people are in general cleanly in their habits, especially in those villages which are frequented by strangers in summer. On the whole, they are decidedly an industrious, moral, and church-going population; generally comfortable, and, it is hoped it may be added, contented.

The people are not addicted to poaching. Formerly there were one or two *stills* among the Ochil Hills; and the village of Craigmill was notorious as the haunt of smugglers, but since

the duty on spirits has been lowered, smuggling in all its branches has disappeared.

IV.—INDUSTRY.

Agriculture.—

Number of acres, Scotch measure, in cultivation, (of which about 3000 are carse, and 1000 dryfield,) about	4000
In pasture, about	5000
Under wood, about	1000

The land kept continually in pasture is confined to the hill ground. Part of this was at one time in cultivation; but it was found that it could not be cultivated to advantage, owing to the climate and the expense of management.

The wood in this parish is chiefly planted. It consists of fir, larch, oak, ash, elm, plane, beech, &c. On the whole, the management, with regard to thinning, &c. is good. The neighbouring country is supplied with wood for farm-buildings, palings, and other agricultural purposes, from the Airthrey plantations, by means of a saw-mill erected on the property.

Rent of Land.—The average rent of arable land in the parish may be estimated about L. 2, 10s. per acre. Rents in the Kerse are generally payable in grain, converted into money, according to the fiars' prices, 2½ bolls wheat per acre being about the average. The average rent of grazing on the low ground for a cow or ox probably from L. 2, 10s. to L. 3, and for a sheep on the high lands, about 4s. 6d.

Rate of Wages, &c.—The rate of wages for labourers is 10s. per week, summer and winter; masons and carpenters, 2s. 6d. per day.

Live-Stock.—The common breeds of sheep in this parish are the black-faced and the Cheviot. The wool of the former has been much improved by crossing with the Leicestershire breed. The Cheviots have been lately introduced, and are likely to prove advantageous. Considerable attention has been paid to the breed of milk cows. They are principally Ayrshire. The breed of draught horses has also been carefully attended to.

Leases.—The duration of leases is generally nineteen years, which is commonly considered favourable to the occupier. The farm-buildings are, in general, in pretty good condition. Wedge-draining is almost universal in the Kerse farms, and is of the very greatest benefit.

Husbandry.—The system of husbandry pursued in the Kerse is a six years' rotation, viz. fallow, wheat, beans, barley, hay, and

oats. Potatoes and turnips are not much cultivated in the Kerse, but are raised in considerable quantities on the dryfield part of the parish.

Produce.—The following may be considered a pretty fair calculation of the produce of the Kerse :

500 acres in wheat, at 4 quarters per acre, and averaging L. 2, 11s. 10d. per quarter,	L. 5188 6 8
500 acres in beans, at 4 quarters per acre, and averaging at L. 1, 11s. 7d. per quarter,	3156 6 8
500 acres in barley, at 5½ quarters per acre, and averaging L. 1, 11s. 10d. per quarter,	4377 1 8
500 acres in oats, at 5½ quarters per acre, averaging L. 1, 1s. 5d. per quarter,	2944 15 10
500 acres in hay, at 200 stones of 22 lbs. per acre, averaging L. 3 per 100 stones,	3000 0 0
100 acres in potatoes, at 40 bolls per acre, averaging 5s. per boll,	1000 0 0
400 acres in fallow.	

3000 acres.	Gross produce,	L. 19,668 10 10
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The dryfield, supposed to extend to about 1000 acres, the one-half of which is pasture, as follows :—

500 acres in pasture, say	L. 250 0 0
125 acres in oats, at 4 quarters per acre, averaging L. 1, 0s. 11d. per quarter,	522 18 4
63 acres in potatoes, at 35 bolls per acre, averaging 5s. per boll,	551 5 0
62 acres in turnip, at L. 6 per acre,	372 0 0
125 acres in barley, at 3½ quarters per acre, averaging L. 1, 5s. 4d. per quarter,	554 3 4
125 acres in hay, at 120 stones, at 6d. per stone,	375 0 0

1000 acres.	Gross produce,	L. 2625 6 8
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The hill-ground, always in pasture, extends to about 5000 acres, grazing about 4000 sheep, which, reckoned at 4s. per sheep, gives the gross produce of this part of the parish at L. 800. According to this calculation, the gross produce of the land in pasture, or in cultivation, amounts to L. 23,088, 17s. 6d. which may probably be considered a pretty near approximation to the truth.

Manufactures.—There is a woollen manufactory in the village of Menstrie, employing about fifty hands; a distillery at Dolls, near Menstrie; a paper-manufactory near Bridge of Allan; and a spinning-mill lately established in the same neighbourhood. All appear to be under good management; and I am not aware that any of them are injurious to the morals or health of the people.

V.—PAROCHIAL ECONOMY.

Market-Town.—There is no market-town in this parish. The nearest is Stirling, which adjoins the southern boundary of the parish, and Alloa, about three miles from its eastern extremity.

Villages.—There are five villages in the parish of Logie, besides smaller hamlets. Menstrie, the largest, contains near 500

inhabitants. It is a flourishing village, with a well attended school, and an active woollen manufactory. Blair Logie, famous for the salubrity of its climate and goat-whey, is a beautiful clean village, at the rocky base of the Ochils, commanded by the Old Place, or Castle of Blair Logie, now the residence of a respectable hill farmer. It contains little more than 100 inhabitants. Craigmill is a small village at the southern base of the Abbey Craig, formerly celebrated for the smuggling propensities of its inhabitants; but since the duty on spirits was lowered, it has been deprived of this branch of trade. Population about 90. Causewayhead, terminates the Long Causeway of Stirling, population about 200. Bridge of Allan, a flourishing village on the banks of the Allan, is now much resorted to on account of its proximity to the Airthrey mineral springs, population near 200.

Means of Communication.—There are four turnpike roads in this parish, which meet in one point at the village of Causewayhead, viz. the Crieff, Alloa, Dollar, and Stirling roads. Their joint extent amounts to about eleven or twelve miles. The roads are in indifferent repair, especially the Crieff road, which is always in bad order, and rendered impassable by tolls. There are no fewer than seven turnpike gates and check-bars in the parish, all within about two miles of the manse.

Stirling is the post-town from whence letters are conveyed to the different parts of the parish by letter-carriers on foot. Two public coaches, besides the mail from Perth to Glasgow, pass through the parish; also an omnibus from Stirling to Alloa, and during summer an omnibus plies regularly several times a day between Bridge of Allan and Stirling.*

A very elegant bridge has lately been thrown over the Forth at Stirling, the old bridge having been deemed unsafe. The bridge over the Allan is one of those narrow, old-fashioned, dangerous bridges so common in this part of the country, which one would hardly expect to find at the present day on a great public road, such as that between Perth, Stirling, and Glasgow. The fences are chiefly thorn hedges, in good condition.

Ecclesiastical State.—The parish church could not be more conveniently situated, being nearly in the very centre of the parish. It is thus placed, however, at the distance of two miles and upwards from the two most populous villages, Menstrie, and Bridge of Allan, which are situated, the one at the eastern, and the other

* The steam-boats which ply between Stirling and Newhaven afford cheap and expeditious communication to all the country near the Forth.

at the western extremity of the parish. The church was built in 1805. It is a plain, unpretending structure, but neat and commodious. Its situation is considered peculiarly romantic and beautiful; and that of the old church (now an interesting ruin) still more so. It is in thorough repair; but formerly was cold in winter,—a defect which has lately been remedied by the erection of a stove for heated air. It is seated for 644 people, but can accommodate a much larger number. There are no free sittings except those set apart for the poor in No. 16. Neither are there any sittings let. The manse was built about 1803. It was a small, and by no means a comfortable house, with offices in a very miserable condition, when the present incumbent came into possession of the living in 1832. At that time it received a considerable addition; and new offices were built at the joint expense of the heritors and the present incumbent. The glebe, independent of garden, consists of about six acres of excellent land, which was let by the present incumbent at L. 4 per acre. The stipend consists of 17 chalders, half in meal and half in barley, payable according to the fiars of the three different counties in which the parish is situated. Converted into money, the stipend of late years has never exceeded L. 230, except the two last years, when, owing to the high prices, it considerably exceeded that sum. There is no place of worship, besides the parish church, connected with the Established Church in the parish. The only Dissenting chapel is at Blair Logie, and belongs to the Relief body. The minister, I understand, is paid by the seat rents, and by the collection at the church doors.

From the lists lately completed for the General Assembly's Church Extension Committee, it appears that there are 244 families in the habit of regularly attending the Established Church, comprehending 1086 individuals of all ages, and 163 families who attend the Relief place of worship at Blair Logie, and the different Dissenting meeting-houses in the neighbouring towns, comprehending 706 individuals. The average number of communicants at each administration of the Sacrament of the Lord's Supper in the parish church is about 340. *

Education.—There are four schools in the parish, viz. the parochial school, and three others which are supported by the school fees. The school at Menstrie is also partly maintained by an annual allowance from Lord Abercromby. The usual branches of

* Considering the great distance of the most populous villages from the church, the attendance at divine service is remarkably good.

education are taught in all the schools, and Latin and Greek in the parochial school. The salary of the parochial teacher amounts to L. 30, and the school-fees average about L. 38 per annum. The school-house is situated about the centre of the parish, in the neighbourhood of the church, and is a neat and tasteful building in the cottage style. The general expense of education varies according to the different branches taught, from 2s. 6d. to 7s. 6d. per quarter,—the fees for English alone being 2s. 6d.; when writing, arithmetic, &c. are added, 4s. 6d.; Latin, 5s.; book-keeping, 7s. 6d. A small sum is allowed by the heritors and kirk-session to the parochial teacher for instructing the children of the poor.*

The people in general are perfectly alive to the importance of education, and even the poorest often show a great anxiety to procure it for the children. Children are sent to school from the most remote corners of the parish, though the distance, especially during winter, must render it very inconvenient. There are probably none above six years of age, who have not been taught to read or write.

Library.—There is a parochial library, containing a few good books, at Blair Logie, and a small village library has lately been established at Bridge of Allan.

Savings Bank.—There is a Savings Bank in the parish, in which investments are made chiefly or entirely by the working-classes.

Poor and Parochial Funds.—The average number of persons on the poor roll is about 17 or 18. The usual allowance varies from 4s. to 8s. per month. The amount of the collections at the church-door is from L. 50 to L. 60 per annum, which is sufficient for the support of the regular poor. Other parochial expenses, board of lunatics in the Glasgow Asylum, &c. have hitherto been defrayed by drawing very unwisely on the principle of a small sum lodged in the Bank of Scotland, and now reduced to L. 100. There is also a bequest of L. 18 by the late Sir Robert Abercromby, distributed amongst the poor on the roll at the beginning of every year.

April 1841.

* An infant and girl's school has been lately established at Causewayhead, by the Honourable Mrs Abercromby, and promises to be of the very greatest benefit to the neighbourhood.

PARISH OF CAMPSIE.

PRESBYTERY OF GLASGOW, SYNOD OF GLASGOW AND AYM.

THE REV. ROBERT LEE, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—WHETHER the word Campsie signifies in Gaelic a crooked strath, as Mr Lapslie asserts, or, whether as Dr M'Leod thinks, it means a church in the bosom of a hill, must be left to the judgment of those who are skilled in Celtic etymologies. The former definition is certainly descriptive of the parish; and as the name was given to it before any church appears to have existed, it is perhaps the more probable of the two.

Extent and Boundaries.—Previous to the year 1649, Campsie extended 11 miles from east to west, from the Garrel Glen to Craig Maddie Muir. The southern boundary was the River Kelvin, flowing westward through a morass impassable in winter; and the western limit was a line running across the country from that lofty hill in the north-western extremity of the parish, called the Earl's Seat, to Cadder House. The northern boundary extended, as it still does, from the Earl's Seat, nearly due east, about three miles; after which, it follows the course of the Carron Water. The greater part of the Campsie Fells is thus included within this parish, though the *Mickle Bin*, the highest of the range, is not. Campsie was thus, in former times, a district very much isolated, and the people in consequence are said to have been distinguished by many peculiarities. What these were, I have not been able to learn distinctly. They were probably old customs, which retained their hold longer here than in places less secluded from the world.

In 1649, the parish was reduced to its present dimensions by the annexation of its eastern extremity to Kilsyth, and of its southern extremity to Baldernock, then first erected into a separate parish. The length of Campsie is about 7 miles, and its breadth about 6. It is bounded by the parish of Fintry on the

north ; by Baldernock and Strathblane on the west ; by Cadder and Kirkintilloch on the south ; and on the east by Kilsyth. Campsie consists of two hills, namely, the Fells on the North and the South Brae, and of the strath lying between them, and of which the general direction is east and west.

Topographical Appearances.—In the western extremity of the parish, where it joins Strathblane, this strath does not exceed half a mile in width, but it gradually unfolds itself in its course eastwards, till it expands into the open country on the south and south-east. The surface is so undulating, that, with the exception of that across the Haugh of the Kelvin, near Kirkintilloch, I do not think 200 yards together of level road can be found in the parish. The South Brae is about 700 feet, and the Fells are said to be, at the highest point of the range, 1500 feet above the level of the sea. These last mentioned hills, shooting boldly up from the valley, like a prodigious rampart, present at all times a striking and imposing appearance, especially when clad in snow, and during rains in summer, when their summits are enveloped in clouds, and the white streaks of foam, marking the track of those numerous water-courses that pour down their sides, contrast finely with the deep rich verdure with which the Fells are then clothed to their tops.

Glens.—The Campsie Glens are celebrated for their beauty, and attract great numbers of visitors during the summer months. They are deep gorges cut down in the south face of the Fells, by the long-continued action of water, aided, perhaps, by other causes, through the solid rock, fragments of which, some of them of enormous dimensions, are strewn along the bed of the torrent. The rocky and precipitous sides of the glens, along which terraces have been cut by the proprietors for the accommodation of visitors, are ornamented with an abundance of wood, as well as a considerable variety of ferns, lichens, and mosses, and with wild flowers innumerable. That which is most frequented, and which alone strangers commonly visit, is the Kirkton Glen, so called from its proximity to the situation of the Old Kirk. The Finglen, a mile to the westward, though in some respects less striking than the other, has a larger volume of water, and two very beautiful waterfalls, and is, in the opinion of many persons, on the whole, not inferior to its more popular neighbour. These glens, I am sorry to add, prove the occasion of a considerable evil ; for, on Sundays, during the whole summer, great numbers of persons resort to the Clachan of Campsie, from all parts of the surrounding country,

to visit the glens, so that the quiet and decency of a country Sabbath are here destroyed during half the year.

Hydrography.—The Glazert, which runs through a considerable part of this parish, and which, together with the abundance of coal found here, has converted this into a manufacturing district, empties itself into the Kelvin, opposite the town of Kirkintilloch, and is formed by the junction of three burns,—the Pu', a languid streamlet which skirts the base of the South Brae; the Finglen Burn, which crosses the valley at the west end of the village of Haughead; and the Kirkton Burn, which crosses it at the eastern extremity of the same village. These three unite their waters near the lodge, at the entrance to Lennox Castle. Besides those now mentioned, no less than sixteen burns are said to empty themselves into the Glazert.

Climate and Diseases.—It is to be regretted that no exact observations have yet been made, which might enable us to determine exactly the comparative meteorological character of this district. Compared with the surrounding country, however, the climate is evidently more moist, and also both colder in winter and hotter in summer. These differences are easily accounted for, by reference to the position of the locality, situated between the Frith of Clyde on the south-west, and the Frith of Forth on the north-east, and lying immediately under lofty hills, which attract the clouds ascending along both those arms of the sea. The comparative coldness of this parish in winter arises not only from its proximity to the depositories of snow on the summits of the hills, but also from the contraction towards the west of the strath, through which the winds from the eastern quarter rush as through a funnel. The temperature in summer is greatly heightened by reflection from the Fells, which lie nearly at right angles to the rays of the sun at noon, and present an almost unbroken surface, bending gradually towards the south at both extremities, so as to concentrate the rays upon the valley below.

The ill effects of a damp climate are in part counteracted by the general dryness of the soil. Still, I do not think Campsie can be pronounced a remarkably healthy locality, at least in the valley. Fevers and inflammations prevail to a great extent, as well as pulmonary diseases. In the year 1836, there were 153 funerals, the largest number, I believe, which ever has taken place in one year. Besides climate, other causes are to be adverted to, as operating unfavourably on the sanatory condition of the population. 1. The cottages are almost, without exception, damp,

being generally ill built, and generally without drainage. 2. Though in this respect there is a considerable improvement, still the people generally are too little impressed with the importance of cleanliness in their habitations, and of ventilation, as means of preserving health. 3. In the villages, especially in Lennox-town, where the inhabitants have increased in a far greater proportion than the houses, the people are too much crowded in their dwellings. The Irish labourers have imported their custom of *pigging*,—as many persons occupying a room at night as can find space to lie in it,—a practice equally inimical to health and to decency. 4. Though none of the manufactures in this place appear decidedly injurious to health, as compared with many others, yet there are many circumstances necessarily involved in manufacturing employments, which cannot but prove, on the whole, unfavourable to health; such as the practice of putting children to work at an early age; labouring in heated rooms; attending furnaces; working among cold water; breathing a hot atmosphere in which a great quantity of water vapour and other gases are suspended; mining, &c. Though the masters of works in this parish manifest, almost universally, a very humane regard to the health and comfort of their work-people, those causes must, on the whole, operate unfavourably on their health and longevity.

On the other hand, it is proper to remember, that persons employed in manufactures are generally not exposed to cold and wet, the great springs of disease among the agricultural population. 2. The inhabitants of Campsie are, for the most part, better employed and better paid than in most surrounding parishes. 3. The parochial allowances, though probably not so large as the sanatory and moral welfare of the population demand, are liberal, compared with those of many other parishes. 4. A large number of landed proprietors and manufacturing gentlemen are resident in the parish, most of whom are wealthy and liberal; so that it is almost impossible that much of that slow starvation should be found here, which is complained of in many other parts of the country. 5. Lastly, intemperance, the great mother of disease, as well as crime, is apparently diminished to a considerable extent, partly through the efforts of abstinence societies.

Zoology.—The advancement of civilization in this part of the country is marked very distinctly by the changes that have taken place in the animals inhabiting it. Extensive plantations have been formed, especially around Woodhead, and a vast variety of birds have in consequence taken up their habitation here, which, forty

years ago, could find neither food nor shelter; while the larger predatory tribes have either disappeared, or are seen at long intervals. The huntsman and his hounds, that used formerly to be maintained by the tenantry for the defence of their live-stock against the attacks of "beasts of the field and fowls of the air," have disappeared with the creatures against which they waged war. So lately as the latter half of the last century, the golden eagle bred regularly in Campsie; so did the gentil falcon; two species of the badger, three of the fox were natives. Badgers are still found occasionally; foxes are very numerous; otters are still seen, also polecats; hedgehogs are plenty. A martin cat was taken in the Finglen some years ago. The true wild-cat is believed to be extirpated from this parish. There are a great many species of hawks, most of them natives, as also several falcons. The goshawk, buzzard, and kite, are common. Eagles are no longer observed; neither is the red-legged crow; and the hen-harrier but seldom. The lapwing breeds in great numbers, as also the stonechat; but both disappear during the winter. I know few things more pleasant than on a summer evening, in the solitude of the lofty moors, to hear the plover winding his mellow horn. The note is rich and beautiful, and is rendered doubly pleasant by the deep silence around, as if all nature were listening to the little trumpeter. Squirrels are now abundant. They were first observed in this district about fifteen years ago. Roe-deer are now permanent residents with us, and red-deer are said to have been seen crossing our moors. The jackdaw first made its appearance here about 1808 or 1809. Pheasants, introduced some years later, are now spread over the country. The mistletoe thrush now breeds in Campsie, so does the beautiful kingfisher: a pair of water-ouzels built their nest under the lower fall in the Finglen in 1837. The dabchick and the baldcoot have also recently been added to the inhabitants. The little golden-crested wren, and the redstart, have also been observed of late, together with many new varieties of the duck; among others, the golden-eyed diver. Almost all the tribes of smaller birds common in Scotland are found here in abundance.*

Botany.—No district in the vicinity of Glasgow ranks very high

* Mr Stirling, Craigbarnet, shot, in December 1838, two cross-bills, the first seen in this quarter. They are very beautiful birds, and are preserved by this gentleman in a very fine collection which he has made, and which contains not only all the birds inhabiting this district, but a great number of beautiful specimens of foreign ornithology.

in respect of botanical productions. Campsie glens furnish almost as many good plants as any locality within ten miles of the city ; and some are found here which have not been described elsewhere in the neighbourhood. The following list contains the names of those plants, which are more rarely found in Scotland.

<i>Veronica montana</i>	<i>Geranium pyrenaicum</i>	<i>Epilobium angustifolium</i>
<i>----- scutellata</i>	<i>----- sylvaticum</i>	
<i>Melica uniflora</i>	<i>Althæa officinalis</i>	Mosses.
<i>Galium pusillum</i>	<i>Genista anglica</i>	<i>Gymnostomum curvirostrum</i>
<i>Campanula latifolia</i>	<i>Habenaria albida</i>	
<i>Verbascum thapsus</i>	<i>----- bifolia</i>	<i>Weissia tenuirostris</i> †
<i>Chenopodium Bonus-Henricus</i>	<i>----- viridis</i>	<i>----- curvirostra</i>
<i>Lathræa squamaria</i>	<i>Gymnadenia conopsea</i> *	<i>Anomodon viticulosus</i>
<i>Arenaria trinervis</i>	<i>Carex speirostachya</i>	<i>Encalypta ciliata</i>
<i>Sedum villosum</i>	<i>Polygonum bistorta</i>	<i>Orthotricum Drummondii</i>
<i>Prunus padus</i>	<i>Vaccinium oxycoccos</i>	<i>Dicranum squarrosum</i>
<i>Cardamine amara</i>	(the cranberry.)	<i>Tortula rigida</i>
<i>Erysimum alliarum</i>	<i>Pyrus aucuparia</i> (in the greatest abundance.)	<i>----- tortuosa</i>
<i>Geranium lucidum</i>	<i>Rubus chamaemorus</i>	

Mineralogy.—The minerals of which this district is principally composed are, 1st, trap ; and 2d, those of the coal formation. That range of hills which runs along the north side of the Strath, called the Campsie Fells, consists chiefly of large tabular masses of trap, the divisions in which are frequently indicated by the springs of water which issue from them, and which trace their course in deep furrows on the brow of the hill. The geological position and character of these masses are found to vary considerably in different situations ; in some approaching near to a columnar form, and then passing into other layers, having large amygdaloidal cavities filled with calc-spar, quartz, &c. The transition between these two masses is sometimes marked by a soft, friable greenstone, having a marly appearance, from the quantity of mealy zeolite and calc-spar which it contains. Other layers are characterized by having a greater abundance of hornblende and felspar crystals intermixed. These phenomena have been accounted for by the different modifying circumstances under which the trap has been cooled.

Foliated zeolite, prehnite, and compact gypsum are also frequently found in this secondary trap formation. Many sections are to be seen in the parish (such as in the Clachan Glen, the head of Shield's Burn, &c.), of the immediate contact of the trap with the coal formation ; the latter sometimes dipping under the former, and at other times being upheaved by it into a vertical

* In such abundance as sometimes to scent the air.

† This species, which was long supposed to grow exclusively in the glen of Campsie, is now proved to be a curious variety, or rather state of *Tortula tortuosa*.

position. Several trap dikes are found to intersect the coal measures of this district, by which the coal is frequently thrown out of its position, relatively to the horizon, and sunk or elevated to the extent of several yards from its original situation. One dike of great extent thus intersecting the coal measures is to be seen in the bed of the Glazert, at Kincaid Printfield, in the eastern part of the parish, and near to Kinkell, about a mile farther to the west. From traces of this dike having been discovered in a line to the east, in the neighbouring parish of Kilsyth, and to the west, in those of Kilpatrick and Renfrew, it is exceedingly probable that it may be found to traverse the whole coal basin lying between the Friths of Forth and Clyde, in a north-east and south-west direction, and, therefore, intersecting the coal, which dips from north-west to south-east, nearly at right angles. A very fine section of a dike of compact felspar, about twenty feet in height and five feet in breadth, is to be seen in the Kirkton Glen, in the west end of the parish, elevating the strata of limestone, slate-clay, and ironstone, which bear upon the dike, and dip on either side of it at a considerable angle. The slate-clay, where in contact with the felspar, is consolidated into a hard splintery mass resembling jasper.

The coal formation consists of the usual alternating rocks of freestone, limestone, argillaceous ironstone, aluminous clay-slate, &c. with beds of fossil shells, such as usually occur in the upper members of this series.

From the unequal and undulating nature of the surface throughout the whole of this district, it may readily be supposed that the thickness of cover overlying the coal strata must vary considerably in different situations.

The limestone in this district is wrought for agricultural and building purposes, and is of the very finest quality, being almost altogether a pure carbonate of lime, as will be seen by the following analysis of a portion of that stone, viz.—

Carbonate of lime,	93.00
protoxide of iron,	2.90
magnesia,	1.30
Insoluble earthy matter,	2.21
Iron pyrites,	0.59
	100.00

This limestone lies about two feet above the coal, and is three feet ten inches in thickness. Another stratum is found at nine inches under the coal. It is provincially called the white limestone. From its situation, it hitherto has not been wrought to any extent; but it also is of very excellent quality; and from the

quantity of siliceous matter it contains, possesses peculiar properties of binding where exposed to the weather, as also of setting in building under water. The following are its constituents in 100 parts :—

Carbonate of lime,	83.20
protoxide of iron,	2.17
Insoluble earthy matter,	11.87
Iron pyrites,	0.13
Carbonate of magnesia, moisture, &c.	2.63
	100.00

Coal and limestone are also wrought on the north side of the valley, but neither of them is of so good quality as are those on the south side. The coal there is almost wholly used for burning the limestone, whereas that on the south is used chiefly by the public works, and for domestic purposes.

In sinking a bore in search of coal in the strata of the Glazert, near the alum-works, in 1836, at a depth of about thirteen fathoms, a spring of water was struck, which discharged about 120 gallons per minute at the aperture of the bore, for several months. It afterwards abated nearly a third of this quantity, but continues still to discharge about 80 gallons per minute of pure water, at the temperature of 48° Fahrenheit. This artesian well now furnishes a plentiful supply to the alum-works afterwards described.

No. 1.—Section of Coal Strata in a Pit put down on the summit level of the Ridge, running along the south side of the Strath of Campsie, at the height of 450 feet above the bed of the River Glazert.*

	Fathoms.	Feet.	Inches.
No. 1. Surface earth and clay,	1	2	0
2. Blaes,	11	1	0
3. Ironstone band,	0	0	7
4. Blaes,	3	2	2
5. Coarse black limestone,	1	0	0
6. Blaes with four separate bands of ironstone imbedded together about 20 inches thick,	1	0	0
7. Blaes,	22	2	0
8. Limestone (blue), containing 93 per cent. carbonate of lime,	0	4	0
9. Schist or alum slate,	0	2	0
10. Coal,	0	3	8
	41	5	5

Under this the following series is found cropping out to-day, on the slope of the ridge down to the level of the river.

* The ironstone bands, No 6, which are considered of good quality, have been
STIRLING.

	Fathoms.	Feet.	Inches.
Brought forward, 41	5	5	
11. Argillaceous clay,	0	0	7
12. White limestone containing a larger proportion of siliceous than the blue of the upper series,	0	4	6
13. Kingle, a hard siliceous rock,	0	4	6
14. Blaes,	1	1	4
15. Blue limestone,	0	0	10
16. Fakes,	0	0	10
17. Schist or alum slate,	0	0	9
18. Parrot coal,	0	0	4
19. Common coal,	0	0	10
20. Fire-clay in two beds separated by a hard siliceous band of 6 inches thick,	1	2	0
	46	3	11

No. 2.—Journal of Bore put down at Drummillan Park (level of Glazert) between the 13th April and 19th October 1836.*

	Faths.	Feet.	In.		Faths.	Feet.	In.
Surface earth,	1	0	7	Ironstone,	0	0	3
Freestone rock,	1	0	9	Blaes,	0	0	7
Very hard band,	0	1	0	Coal,	0	0	11
Fire-clay,	0	1	8½	Fire clay,	0	1	2½
Light fakes,	0	1	8½	Fakes,	1	0	6½
Hard white rock,	0	4	6	Hard band,	0	0	7
Hard blue rock,	1	5	8	Limestone,	0	0	8½
Fakes,	0	1	6	Blaes,	0	1	7
Fire-clay,	0	0	11	Do. with stripes of fakes,	1	4	11½
Bastard limestone,	0	3	9	Hard band,	0	0	7½
Blaes with stripes of fakes,	1	4	6	Blue fakes,	0	1	0
Blue blaes,	0	1	7½	Blaes,	0	1	1½

wrought to some extent, but the distance at which they are situated from blast furnaces creates a heavy expense for carriage, and the coal of this district is not suitable for smelting the ores. The black-band ironstone has not been found in this district, to which the above section belongs; but it is found to exist, and has been partially wrought on the south side of the ridge, and in the neighbouring parish of Baldernock. Its thickness varies from 12 to 18 inches, and is situated immediately above the coal, forming part of the usual thickness of the coal stratum.

* The terms employed in the above register are for the most part provincial, but we believe they are pretty generally understood by persons conversant in mining operations. It was hoped, as formerly stated, that by putting down a bore in the lower ground of the strath, the finer coal measures, lying to the south and east, might have been found underlying those of this district. But from the unfavourable appearance presented at the termination of the above bore, it was apprehended that these must lesset or crop out before reaching this distance. This trial is so far satisfactory, that it resolves all conjectures as to the obtaining of coal at any depth, which would allow of its coming into competition in point of expense of working, with the more easily obtained coal of the higher levels of the district. Regarding the latter it may be stated in conclusion, that, though a great part of it has been wrought out, particularly within the last thirty years, very large fields of it still remain, especially in the south side of the valley, and ample supplies for many years to come are likely to be found, for even the increasing consumption of the parish. Hitherto, as a matter of economy, those portions of the coal-field which lie in the higher elevations, have been wrought so as to obtain day levels for draining off the water at the least expense into the river; and, in very few instances, has it been found necessary to employ engines for this purpose. In following the dip of the coal, however, to the south-east it will, no doubt, be found necessary to adopt this mode of draining the water, where the bed of the coal falls below the level of the river, and day levels are rendered impracticable.

	Faths.	Feet.	In.		Faths.	Feet.	In.
Ironstone, ...	0	0	3	Light blaes, ...	0	1	3½
Blaes, ...	0	0	4	Blaes with stripes of			
Coal, ...	0	1	2	white fakes, ...	0	1	6
Fire clay, ...	0	2	11½	Very hard band, ...	0	1	7½
Fakes, ...	1	0	10½	Fakes, ...	0	0	6
Bastard limestone, ...	0	1	10½	Blaes, ...	1	0	0
Blaes, ...	0	5	5	Do. with stripes of			
Hard white rock, ...	0	2	10½	fakes, ...	0	0	9
Blue rock, ...	0	3	6½	Rock, ...	0	0	9
White rock, ...	0	2	5½	Limestone, ...	0	1	8
Very hard do.	1	0	7	Very white rock, ...	0	1	5
Grey fakes, ...	0	1	7	Light fakes, ...	0	1	5
White rock, ...	2	1	9½	Hard band, ...	0	0	4
Fire clay, ...	0	2	9	Light fakes, ...	0	0	9½
Light fakes, ...	0	2	0½	Very hard band, ...	0	1	4½
Hard band, ...	0	1	5	Hard rock, ...	1	3	5
Fakes, ...	0	1	0	Light fakes, ...	0	1	6
Hard white rock, ...	2	4	6	Light hard rock, ...	0	3	9½
White marble band, ...	1	1	11½		—	—	—
Fire clay, ...	0	1	5½		32	3	5
Blue blaes, ...	0	0	2½				

II.—CIVIL HISTORY.

Antiquities.—At the foot of the Campsie Fells are the traces of two Caledonian forts, the larger about 100, the smaller about 20 yards in diameter. They are situated about two miles from the Roman wall, which crosses the country a little beyond the south-east extremity of this parish. A few Roman urns, and a number of English coins, of the ages of Elizabeth, James I., and Charles I., have been dug up at Birdstone. The latter are conjectured to have been hid by the inhabitants who were forced to flee from their houses, by the depredations of Montrose's troops, at the period of the battle of Kilsyth.

Buildings.—The old church at the Clachan had no architectural beauty, though the situation at the opening of the Kirkton Glen is very fine. The belfry still stands; and the old bell, which was deposed for several years, has lately been reinstalled in its ancient honours, and is again duly rung at funerals, and on Sunday evenings, when the neighbourhood assembles in the school-house for divine service.

The present parish church, which was erected in 1829, is situated at Lennoxtown. The style is Gothic, and the building is handsome and large, being capable of accommodating 1600 persons. The interior is fitted up in a very commodious and superior manner. Indeed, everything connected with the church reflects credit on the liberality of the heritors, who expended on it nearly L.8000, including the cost of ground, levelling, fencing, &c. In the tower, at the west end of the church, is a clock, pre-

sented by the late Miss Lennox of Woodhead, and a very sonorous bell. A very magnificent set of communion vessels was presented, at the opening of the new church, by James Denistoun, Esq., merchant, Glasgow, a native of this parish, and a man truly illustrious, if generosity entitles any one to be so esteemed. His liberalities were almost innumerable, and were not more distinguished for their magnificence, than for the judgment and delicacy with which they were conferred.

By far the noblest building in this parish, or indeed in this part of the country, is Lennox Castle, the seat of John L. Kincaid Lennox, Esq., who is proprietor of nearly half the land in the parish. This magnificent mansion, which is situated on the brow of the South Brae, near the position of the old house of Woodhead, was commenced in 1837, and is now (May 1841), just finished. The character of this building, which is in the boldest style of the old Norman architecture, from a design by Mr David Hamilton of Glasgow, harmonizes well with its lofty and picturesque situation, nearly 500 feet above the level of the adjoining valley, and with the bold and striking scenery around. Nearly opposite Lennox Castle, on the other side of the valley, stands in a snug sheltered situation, the House of Craigharnet, more celebrated for its hospitality than for its architectural pretensions; and a mile further eastwards, in a very beautiful situation, at the embouchure of the Kirkton Glen, is the House of Bancleroche, or Kirkton, as it was till lately called. The other principal mansion-houses in the parish are, Kincaid and Antermoney, both the property of Mr Lennox; Glorat House, the situation of which is striking, though not very accessible; and Anchinreoch, at present occupied by the tenant on the farm.

Historical Events.—If those times and places which are the best to read of are the worst to live in, the inhabitants of this parish must be held to have been fortunate beyond the ordinary lot of mankind, there being almost no events connected with it which can be called historical; and the names of its past or present inhabitants, that are most known, or are likely to be long remembered without its bounds, are those of Mr Bell of Antermoney, the traveller; Mr Charles Mackintosh of Campsie, the inventor of the celebrated waterproof cloth, which bears his name; and Mr James Bell, the author of several important geographical works, who spent his last years in this parish, and a short account of whom will be found below, kindly furnished me by a member of

the family in which Mr Bell spent his last years.* I may add the names of Mr Robert Dalglish, formerly Lord Provost of Glasgow, in the affairs of which city, especially of its charitable institutions, he took, during a long series of years, a deep and effective interest, and who has long been connected with Campsie; and of Mr John M'Farlan, of Banceleroche, the early companion of Sir W. Scott, and the author of numerous publications.

Several of the clergymen of Campsie have enjoyed considerable celebrity or notoriety, as Lamberton, Beaton, and others, before the Reformation,—and several since.

So lately as the year 1744, black-mail was paid by the farmers in Campsie to Macgregor of Glengyle, who seems, from Lapslie's account of him, to have had some of that honour which is said sometimes to be found among thieves. The great Rebellion had the happy effect of delivering the people from the need of such protectors. The powers of a feudal baron were exercised in this parish so lately as the year 1693, at which period the Marquis of Kilsyth hanged one of his servants for theft on the Gallowhill, in the barony of Benclouick.

The doctrines of the French Revolution were diffused to a great

* Mr James Bell, the celebrated geographer, was born at Jedburgh, 1769. In 1777, Mr Bell removed with his father to Glasgow, where, after receiving a liberal education, he served an apprenticeship to the weaving business, and, in 1790, he commenced business as a manufacturer of cotton goods. In the universal depression, 1793, occasioned by the shock of the French Revolution, Mr Bell having a large stock on hand, in common with many others, lost his all, and for a number of years, was employed as a common warper in the warehouses of different manufacturers. It has been said, while Mr Bell occupied this situation, he was frequently more intent on the metres of Horace, the delineations of Mela and Strabo, and the glowing narratives of Xenophon and Thucydides, than upon the porters and splits into which his baskets of bobbins were to be adjusted upon the warping-mill, in consequence of which his chains, when they came into the hands of the workmen, were found to be inextricably entangled. About the year 1806, Mr Bell relinquished this uncongenial occupation, and betook himself to a more laborious mode of earning his subsistence, but one for which he was better qualified, viz. teaching the classics to young men attending the University. This he pursued for some years with diligence and success, being at the same time himself a most indefatigable and arduous student, especially in history, systematic theology, and above all, in geography, which he pursued with unwearied enthusiasm. Mr Bell made his first appearance as an author in 1815, when he was engaged to improve the Glasgow Geography, a work in four volumes, which had been well received by the public, and was now, by the labours of Mr Bell, extended to five volumes. It formed the basis of his principal work. Some years after this, he again appeared as an author in conjunction with a young gentleman, (the late Mr John Bell of Glasgow,) in a small volume of Chinese geography and oriental philology. This work is now rare, but it is said to display a considerable amount of talent. Mr Bell had long been subject to severe attacks of asthma. These gradually assumed a more alarming character, and compelled him to leave Glasgow for a country residence. The place he selected for his retirement was Lukeston, Campsie, where he spent the last ten or twelve years of his life. While he resided at Lukeston, he published an elegant edition of Rollin's Ancient History, interspersed with copious and interesting notes. Here he also published his principal work, "A System of Popular and Scientific Geography," in six volumes. He was engaged in preparing for publication "A General Gazetteer," when death put a period to his labours on the 8d of May 1833, in the 64th year of his age.

extent in Campsie, chiefly through means of Mr Muir, advocate, who was afterwards tried and banished for sedition, and who had many relatives in this part of the country. Mr Lapslie, then minister, thought it his duty to take steps in relation to this matter, which put him in an unfortunate position with respect to many of his parishioners, and led to many unpleasant consequences—among others, the burning of his manse; thus furnishing another proof, how difficult it is for clergymen to step out of their own peculiar province, without seriously endangering their respectability and usefulness.

Old Families.—There are several very old families in this parish, the principal of which are the Lennoxes of Woodhead, the Kincaids of Kincaid, the Stirlings of Craigharnet, the Stirlings of Glorat, and the M'Farlans of Kirkton, who are derived, by the female line, from the same stock from which the Lennoxes of Woodhead claim descent. All these families, the Kincaids, Lennoxes, and Stirlings of Glorat and Stirlings of Craigharnet, have possessed the same estates they now do during nearly four centuries, some of them much longer.* M'Farlan of Kirkton, or Bancleroche, a maternal ancestor of John M'Farlan, Esq. the present proprietor, came into possession of that estate in 1624. Antermoney was purchased by Captain John Lennox, a younger

* The Kincaids were in possession of Kincaid in 1280, as is proved by a charter extant. In 1421, Duncan Earl of Levenax conveyed to his son, Donald, ancestor of the Woodhead family, the lands of Balcorrach, Balgrochyr, Beneloch, Thombay, and others, in the parish of Campsie. The charter still exists. His son, John, was served heir of his father in said lands in 1454, and seems to have been also proprietor of the estates of Kilmordining and Caillie. The estate of Beneloch was sold to Edmonstone of Duntreath in 1660, and was, by the present Sir Archibald Edmonstone, sold to Charles Macintosh, Esq. and William Macfarlan, Esq. in 1834. Glorat was a part of the Earldom of Levenax, and Isabella Duchess of Albany, eldest daughter of the last Earl of the old line, was in possession of it, as appears from the Exchequer Rolls in 1456. John Earl of Lennox, in the Darnley line, gave a grant of the lands of Inehinnun, in Renfrewshire, "delecto consanguineo suo Gulielmo Stirling de Glorat et Margarete Houstoun uxore sue," in 1525, which is the first trace I can find of the family; but very probably Glorat was acquired by the Stirlings about 1470, after the death of Isabella. In 1550, George Stirling of Glorat was Captain and Governor-in-chief of Dumbarton Castle. The arms and motto, "semper fidelis," were granted to the family for their loyalty to their sovereigns, Charles I. and II., and, in the year 1666, the family was honoured with the dignity of knight baronet. Both the Glorat family and the Stirlings of Craigharnet are descended from the Stirlings of Calder or Cadder, whose name appears in the Ragman's Roll, 1279. John Striveling or Stirling of Craigharnet (Craigharnet) is witness to a deed in 1468. Kincaid, "Laird of Kincaid of Stirlingshire, for his vallant service in recovering of the Castle of Edinburgh from the English, in the time of Edward I., was made constable of the said castle, and his posterity enjoyed that office for a long period, carrying the castle in their armorial bearings in memory thereof to this day." "There is an old broad sword belonging to a branch of the family, upon which are the arms, *gules on a fesse ermisee*, between two mullets in-chief, or and a castle triple towered, in base *argent*, with these words,—

"Wha will pursew, I will defend

My life and honour to the end."—*Nisbet's Heraldry.*

son of the Woodhead family. The three families of Woodhead, Kincaid, and Antermoney, are now all of them represented, as these estates are possessed by John L. Kincaid Lennox, Esq. the first in right of his mother, the second in right of his father, the third in right of his uncle.

The claim of this family to the Lennox peerage has been brought down to her own time, by Margaret Lennox, late of Woodhead; from which case, it appears that Askill, a powerful Northumbrian baron of the age of William the Conqueror, having found it necessary, with many other northern barons, to flee into Scotland, was kindly received by Malcolm III.; and his son, Alwyne, was, by Malcolm VI. created Earl of Lennox; the name being derived from the river Leven, and the estate extending over Dumbartonshire, great part of Stirlingshire, and parts of the counties of Perth and Renfrew. The earldom continued in this family down to the time of Earl Duncan, who, with the Duke of Albany and his two sons, was executed at Stirling, May 1425. After this, Isabella, his eldest daughter, enjoyed it many years, and she having died without issue on 1459, the earldom, without any forfeiture having taken place, but by reason of the feudal incident of non-entry, fell into the hands of the sovereign as superior.

Donald, son of Earl Duncan, by a second marriage, was the ancestor of the Lennoxes of Ballcorach. John, the sixth of Ballcorach, came into possession of the lands of Woodhead about 1520.

Parochial Registers.—These are very meagre. One volume commencing 29th October 1689, Mr John Govan, moderator, records the proceedings of the kirk-session down to June 6, 1717. Another volume commences May 27, 1787, and is continued with great irregularity till November 1810. Some few of the matters recorded in the older volume are not without interest. The minutes of the kirk-session are continued from the date last mentioned to the present time. The register of baptisms extends from the year 1696 downwards; that of deaths appears not to have been kept previously to 1790.

III.—POPULATION.

In the year 1783, the population of Campsie amounted to 1627. If the registers of baptisms and marriages may be depended on, the number of the inhabitants must have diminished between the period of the Revolution and the above-mentioned year. Between A. D. 1783 and 1793, the population was augmented from 1627 to 2517. This wonderful increase of inhabitants was occasioned

by the introduction at that time of the manufactures which since have been so much extended in this parish, both the Lennox Mill and the Kincaid Printfields having been established during the ten years mentioned above. In 1831, the inhabitants of Campsie were 5109. In April 1836, the number had increased to 5653, and at present, I believe, they considerably exceed 6000. The majority of the people are employed in manufactures, in the various printfields, the alum-works, &c. and a considerable number in weaving. The increase of the population has arisen entirely from the extension of manufactures; for here, as elsewhere, the agricultural portion of the people seems to have been more numerous 150 years ago than they are now. The great majority of the inhabitants are collected in villages, especially in Lennoxton, which itself contains nearly one-half of the whole population.

The exact number of births annually cannot be ascertained. Those registered in the parish books, in the year 1836, amounted to 127. In 1840, they were only 99. The proclamations in order to marriage, in 1836, were 51. In 1840 they were 43.

Character of the People.—The people of this parish, so far as I can observe, have little to distinguish them from persons similarly circumstanced elsewhere. The agricultural population, living, many of them, in elevated and secluded situations, retain perhaps, more of the primitive simplicity than in most other districts. The migratory habits of many of the calico-printers are highly unfavourable to the formation of regular habits. It is right to add, that a great proportion of the manufacturing population manifest a very commendable love of knowledge, and mental improvement, and zealously avail themselves of any opportunities of acquiring these within their reach. The great improvements in education also which have been effected in this parish, by the liberality of the more wealthy inhabitants, cannot fail to work a decided amelioration in the course of a few years. Indeed, tokens of improvement are beginning to appear already.

IV.—INDUSTRY.

Landed Property and Agriculture.—A considerable part of the parish, it is understood, has never been surveyed by the land-measurer, so that the number of acres it contains cannot be accurately stated. Mr Lapslie, in his excellent Account, written in 1793, supposes it to contain 15,000 Scotch acres, but, taking into calculation the contents noted on the plans of some of the principal estates, and estimating the remainder, 13,500 acres are believed

to be its utmost extent. Of this the hills or fells on the northern side of the strath occupy about 6000 ; about 400 are under plantation and natural wood ; about 50 in small lakes and ponds. The extent farmed as arable land may be about 6000 Scotch acres. The valued rental, by the county cess-books, amounts to L. 6437, whereof the estates of Woodhead, Antermoney, Kincaid, and others belonging to J. L. K. Lennox, Esq. comprise L. 2780 ; Glorat, Sir S. Stirling, Bart., L. 868 ; Bancleroch, J. M'Farlan, Esq. L. 536 ; Craigharnet, A. G. Stirling, Esq. 420 ; part of the estate of Bencloich, formerly belonging to Sir. A. Edmondston, now to Charles Mackintosh, Esq. L. 333 ; remainder thereof, now belonging to William Macfarlane, Esq., L. 300 ; Auchinreoch, formerly belonging to Mr Buchanan of Carbeth, now to Miss M'Innes, L. 402 ; Hayston, and part of Carlestone, Thomas Reid, Esq. L. 281. The remainder of the valuation attaches to various small properties, the highest of which is rated at L. 80. The real rental of the parish is not precisely ascertained. In a state made up by a committee of the inhabitants, in 1828, with the view of adjusting an equitable contribution for the poor, the amount is about L. 15,000, of which fully more than half is charged to the principal heritor. All the heritors reside in the parish, excepting Sir S. Stirling, Mr Macfarlane of Bencloich, Miss M'Innes, and the holders of one or two very small possessions. The proprietors of Woodhead, Glorat, and Craigharnet estates are owners of landed property likewise in other parishes. Mr Macintosh occupies Antermoney mansion-house, of which he has a lease from Mr Lennox, and to which he has made large additions.

Soil.—In few parishes or districts of equal extent is the soil found so various in quality and character. A track along the Kelvin, which, until about the beginning of the last century, had been a morass, is now rich haugh land under regular cultivation, and it would be still more valuable were it not liable to be overflowed, notwithstanding its embankments, in times of very high floods. Small patches of it here and there are deep moss, but arable. From this low level the land rises in gentle hillocks, and at the bases of most of these are beds of gravel and sand, sometimes of great thickness. A considerable extent of light gravelly loam is found in the south-east quarter of the parish, and smaller tracks in the centre of the valley towards the west end and elsewhere. Mr Lapslie supposed the gravelly soil to have been “ brought down from the hills in floods ;” but a theory involving more important

causes and results than ordinary floods must be referred to in accounting satisfactorily for these extensive and irregular deposits. Nearer the base of the fells, the soil is generally a light clay on a tilly subsoil, both being much infested with boulder stones and fragments of sandstone and trap rocks, small and large. The lower hill, on the south side of the valley, is chiefly clayey, and of similar character, and the slopes betwixt it and the Kelvin are light loam, gravelly, sandy, alluvial, and mossy. Excepting about 400 acres covered with heath, and about 200 with woods, the south hill is all arable. There is very little heath on the north hills. On the top of one of them, there are about 300 acres of deep unproductive moss. The rest of these hills, with very trifling exceptions, yield pasturage of first-rate quality, hardly surpassed, indeed, by any hill pasture lands in Scotland.

Leases, Rent of Land, &c.—The leases are generally for nineteen years, the entry being at Martinmas and Whitsunday, and the first year's rent payable at Martinmas and Whitsunday thereafter. On land fit for green cropping, the tenants are usually bound to the following rotation, viz. 1. crop oats; 2. potatoes and turnips; 3. barley, wheat, or oats; 4. hay; 5 and 6. pasture. On the deep alluvial soils, and on the poor wet clay soils, a different course is commonly pursued according to circumstances, as in the one case, taking two white crops in succession, and sowing down, and in the other, breaking up the hay stubbles, &c. What may be styled an ordinary sized farm on the best class of arable land here, contains about 120 Scotch acres; a few possessions are greater, and many much less. The rent paid for such a farm is about L. 300. In one or two instances, L. 4 per acre are paid for some fields, in a very few others, L. 3, 15s.; but on the clayey soils, L. 2, and down to L. 1, is the rent for tillage land. The greatest amount of rent paid by any one tenant in the parish is L. 690, the next about L. 400. On a farm of the size and kind first described, viz. containing 120 acres, the live-stock may be about twenty milk cows, ten young cattle, and five or six working horses, and one or two young horses.

There will be about 25 acres in oats, produce worth, say						L. 11 per acre,	L. 275
16	do.	potatoes,	do.	L. 30	do.		480
3	do.	turnips,	do.	L. 20	do.		50
1	do.	fitches,	do.		do.		10
10	do.	wheat,	do.	L. 12	do.		120
5	do.	barley,	do.	L. 10	do.		50
20	do.	hay,	do.	L. 8	do.		160
40	do.	pasture,	do.	L. 2	do.		80

'The produce of an inferior farm of say 70 acres may be as follows:—

20 acres white crops at L. 8,	.	L. 160	0	0
10 do. green do. L. 20,	.	200	0	0
20 do. hay at L. 4,	.	80	0	0
20 do. pasture at L. 1, 10s.	.	30	0	0
70		L. 470	0	0

In this case, there may be six milk cows, three young beasts and three horses ; and the rent may be L. 110.

Husbandry.—The district being in the neighbourhood of Glasgow, an active tenant will always lay his account with purchasing a considerable quantity of dung, in addition to what is produced on his farm, and in raising as much green crop, particularly potatoes, as possible. Summer-fallowing is seldom practised, nor is there much need of it, as nearly all the arable land in the parish may be made, by thorough draining, to carry green-crop profitably. Lime is to be had prepared at sundry places in the parish, and the soil generally being of a ferruginous quality, it is often found to act with good effect. It is necessary, however, to employ it with discretion and judgment. The best quality of dung will here, as everywhere, produce the best crops ; and it may with some truth be said, the best farmer is he who is the most liberal in its use, the supply being almost unlimited. In our moist climate the earlier kinds of oats are found to be the most suitable. Pease and beans are rarely sown ; flax only in very small quantities occasionally ; rye never. Carrots have sometimes been successfully tried in small patches of deep free soil. None of the artificial grasses, except rye-grass and red and white clover, have been attempted by the farmers ; nor have any of the other more uncommon of the vegetable products for soiling been cultivated. The kinds of turnips raised are the Aberdeen, or Dutch yellow, and the Swedish ; and only a small breadth is sown for the use of the dairy stock, as the ground suitable for growing them can be more profitably employed in potato cropping, than in turnips for other use.

The Dairy.—This is a branch of chief importance in the husbandry of our district, as a ready and profitable market is found in Glasgow for all its produce. Butter and butter-milk are the only forms, it may be said, in which that produce appears in the market. The Ayrshire breed of cows is carefully cultivated, and no other kinds nor mixed breeds are to be seen here. A very good cow will yield in a year, say 200 pounds of butter, at 1s., = L. 10,

and 1600 pints of butter-milk at 1d. = L.6, 13s. 4d. = L.16, 13s. 4d. First-rate cows occasionally yield more than the above. The produce of ordinary cows, with ordinary feeding, may be stated at about L.12. The wives and daughters of our farmers are very famous for their industry and skilful management of this department: and on its success a great part of the rent depends.

Hill Farms.—The cattle grazed on the Fells are almost all West Highlanders; the sheep generally the black-faced breed from Tweeddale. On the largest grazing farm in the parish the usual number of live-stock is, 700 sheep, 100 Highland cattle, 12 Ayrshire milk-cows, and 12 young beasts of the same breed, and 12 horses, old and young. The extent of arable land in this farm is 80 acres; the pasturage has not been measured. On another grazing farm of inferior quality, containing 815 acres, whereof 28 are arable, the stock is usually 300 ewes and lambs, 60 black cattle, 8 milk cows, 6 calves and queys, and 3 horses. In some seasons the stock is greater. The rent charged for grazing a cow is from L.2, 10s. to L.5, and a sheep from 7s. to 10s.

Horses.—There are some good draught horses of the Clydesdale breed in the district, of from L.30 to L.40 value; but by far the greater number are of inferior mixed breeds, which sell at about L.20 to L.25 a head.

Farm Buildings and Enclosures.—The class of tenantry in this district being what is styled working farmers, the size of the farms and the capital employed in them moderate, and the competition in consequence of the dense population and ready markets considerable, extreme personal activity is indispensable, and the farmer is contented with moderate accommodation. The dwelling-houses commonly contain only the kitchen and two small rooms, each having fixed beds, and these often so placed as not to be easily kept free from damp. There are a few instances of a better and more comfortable description.

The enclosures are chiefly thorn hedges, which thrive exceedingly well when duly cleaned, cut and preserved, but they are by no means well attended to and encouraged, except in a very few instances. Many of the "rickle dikes," which Mr Lapslie, in 1793, censured as "totally incapable of keeping the soil warm," and as giving "the parish a cold and uncomfortable look," still remain, or at least others in their stead do.

Rate of Wages, &c.—These are the same as stated in the accounts already published of other parishes near Glasgow.

Obstacles to Improvement.—The chief of these is the small amount of capital brought by the tenant into employment at his entry. His industry, and the chance of a succession of good seasons, are almost all he has to depend upon. When, unfortunately, a series of unfavourable seasons overtakes him, he is sure to take to over-cropping, to redeem his immediate losses, unless the landlord interferes. The consequence is alike injurious to both. Men possessed of the capital, which it is desirable should be brought into a farming speculation on even a moderate scale, are ever ready in this great commercial and manufacturing district, to invest it in pursuits which promise a greater, more rapid, and less uncertain return than agriculture. The importance of thorough draining, wherever the land is damp, begins to be understood; but, unless the landlord finds it convenient to do the work at his own expense, it will proceed slowly, because the tenant cannot command funds, however willing, to sink money in draining,—and however satisfied that it could be most profitably so employed. Occasionally, attempts are made, and the work is for the same reason imperfectly executed. The landlord, seeing this, feels unwilling to give money to assist, believing that it would be expended in work that will not answer the purpose, or will last only a very few years. Time and observation will probably bring about better arrangements. If at the commencement of their leases, the tenants of farms in those parts of the parish, which most need draining, had the means of both thorough-draining and trenching their lands,—the outlay, in every case, great as it would be, would still be amply repaid them in the course of their tacks. Subsoil ploughing and trench ploughing are impracticable in these lands, owing to the boulders and the extreme tenacity of the subsoil. Partly to this same want of disposable funds, and partly to the want of habits of neatness and foresight, is to be ascribed the very imperfect state of the fences. The great numbers of mischievous persons, which, in a district full of manufacturing establishments, infest the fields and pay no respect to inclosures, make it almost impossible for a landlord, unless at a ruinous expense, to keep the fences in order, supposing he wished to relieve the tenant from the burden of doing so. Wherever a weak place in a fence is seen a gap is made; and then to keep in or out his cattle, the farmer thrusts in a dead branch. Digging farm hedge-rows is hardly ever practised.* It is to be

* It is but justice to Mr Macintosh to say, that he has this spring (1841) set the example of extensive improvements in this respect on his estate. He has also laid

hoped, that the better practice of other districts in the treatment of live fences will, by-and-by, come to be appreciated, and that greater facilities than now exist, will be attained for checking the propensity to the wanton destruction of property complained of. At present, owing to the great distance from the county town, and the expense and loss of time occasioned by seeking redress for such petty damages, people generally prefer to submit to them.

Plantations.—Since 1794 much has been done in this department of rural improvement, particularly on the estate of Woodhead. A great deal more may yet be done with advantage, both in respect of profit, as the best means of occupying the grounds; of beauty, as improving greatly the appearance of some parts of the district; and of amelioration of the climate, by the warmth and shelter produced, as well as by the interruption to the boisterous east and south-west winds. Forest trees of the common kinds all thrive here exceedingly well. The most profitable are the Scots fir, larch, and spruce, and the sycamore, oak, and ash.

Manufactures.—This parish is rich in minerals, especially coal. The supply of water is also considerable. The union of these two has occasioned the establishment here of numerous and extensive manufactures. The principal of these are the printfields and the alum-work.

Of the former, by far the most extensive is Lennox-mill Field, which was first established as a print-work about 1786. About 1790 it contained twenty printing tables and six flat presses. At that period, however, a great many women were employed to pencil on colour. This method is now entirely abandoned. About 1805, Messrs. R. Dalglish, Falconer, and Company, became tenants of Lennox-mill, which had, by that time, been considerably enlarged, as it contained fifty tables and eight presses. In 1810, the first surface-printing machine was erected, which was an improvement on block-printing; and soon afterwards a cylinder-printing machine, which was an improvement on the copper-plate printing presses, similar to what the "surface" was on the "block." In both cases, what was formerly on a flat surface, was put on a cylinder of wood or copper. This, continually revolving, furnished itself with colour, which it, at the same time, transferred to the cloth.

At present, almost every description of printing is performed at Lennox-mill and nearly every fabric of cloth printed, from the

out a good deal of ground in new plantations, and has furrow-drained a considerable number of acres.

finest muslin or challis worn by ladies, to the coarsest calico worn by the Pariahs of India.

Lennox-mill now contains seven printing cylinders, and 200 tables. The water-power is equal to about 20 horses, and the steam-engine is 30 horse power. The heating and dyeing are all done by steam, for which purpose about 250 horse power of steam is employed. The coal consumed daily is upwards of 30 tons.

The engraving of the copper-rollers is nearly all performed on the premises, and requires very nice machinery. The stock of copper-rollers is very heavy, amounting in number to 1500 rollers, weighing about 155,000 lbs., valued at 1s. 6d. per lb.

At present the works give employment to 245 men; 135 women; 169 boys; and 140 girls; total, 689. The wages amount to upwards of L. 300 per week, or L. 15,000 per annum.

About 250,000 pieces are produced annually, consisting of garments for home and export trade.*

Kincaid-Field (Messrs Inglis') is an establishment for bleaching and printing cotton fabrics. This work was first established in 1785. There are employed about 238 males, and 136 females, = 374.

The amount of wages is nearly L. 8000. Last year 70,000 pieces of cotton fabric, 24 yards each, were bleached and printed.

Lillyburn Printfield, the property of Messrs Macfarlane, was commenced in 1831, for the printing of linen and calico handkerchiefs and shawls. The number of persons employed at present is about 150; but when trade is brisk, some thirty or forty additional hands are employed.

The Clachan Bleachfield was begun in 1819. Next year the number of persons employed was 13, the number of pieces bleached was 30,900, and the wages amounted to L. 345, 3s. The number of pieces bleached in 1836, was 190,883, and the number of persons 35, thus indicating a great improvement in the process; and the business has since increased. The goods referred to were all muslins for exportation, consisting of books, gauzes, tamboured and sewed robes, jaconets and jaconet handkerchiefs, mulls, &c. in all their varieties.

Glenmill Bleachfield, the property of Mr Mackinlay, was com-

* A school within this work has recently been established, by Messrs Dalglish, for the instruction of those children who had not learned to read. To afford time for this, and to prevent overworking, an additional number of children are employed.

menced in January 1831. The work performed consists principally of bleaching books of muslins, and a small portion of washing. In the year 1836, 1,273,098 yards were bleached. The number of persons employed last year was 90 on an average, and the wages amounted to £1554, 15s. 10½d. The rate of wages varies from 2s. 6d. to 17s. 6d. per week. Last year 587 tons of coal were consumed.

Connected with Glenmill is a house inhabited by females employed in the work. To the management and education of these persons, Mr Mackinlay pays a degree of attention which is highly honourable to himself, and cannot fail to be very beneficial to them.

The alum-work is the property of Messrs Mackintosh and Co. In the year 1806, an enterprising company established in this parish extensive chemical works for the manufacture of alum, copperas, prussiate of potash, Prussian blue, &c. The alum and copperas are derived from a schist or aluminous shale, which is found in the coal strata in this district, and is imbedded between the coal and the limestone, at a thickness of between eighteen inches and two feet, the limestone being above and the coal below.

The constituent principles of this schistus are various. After the coal has been wrought out, the schist, being exposed to the action of the air, undergoes decomposition. The sulphur it contains is, by the absorption of oxygen, converted into sulphates of the metallic bases with which it is combined, and by its exfoliation readily separates itself from the limestone, and falls down into the space formerly occupied by the coal. When in a state of complete decomposition, the schist assumes a beautiful efflorescent appearance, like that of flock silk, and is very soluble in water. This schistus, as drawn from the coal wastes, is lixiviated at the works in large stone cisterns, and the liquid being afterwards evaporated till it attains the requisite specific gravity, it receives the portion of sulphate or muriate of potash necessary to its formation into the state of a crystallizable salt. This is the alum of commerce. In this process, the copperas, existing in the ore, is separated.

The prussiate of potash manufactory, which was the first, and for many years the only manufactory of the kind in Great Britain, is upon an extensive scale, and well arranged. This salt is the ferrocyanate of potassium of chemists. It is used by calico-printers in blue dyeing, also by wool-dyers, and likewise in the manu-

facture of Prussian blue. The exquisite beauty of this salt contrasts strangely with the filthiness of the animal matter out of which it is made.*

The Prussian blue manufactory, which is in connexion with the above, produces Prussian blue of the finest quality. This article, as is known to chemists, is the result of mutual decomposition of prussiate of potash and sulphate of iron.

In the year 1834, another manufactory was established by the same company for the production of muriate of potash for their alum manufactory, and of soda ash (a crude carbonate of soda,) for the use of bleachers. These salts are obtained from kelp. From a particular species of kelp, in addition to the above-mentioned salts, iodine is also obtained, which, from the beautiful colour it produces in combination with certain metallic bases, may possibly, at some future period, become a valuable article in the hands of the calico-printer or dyer. It is as yet, so far as we know, used only in medicine.

Coals, to the quantity of 14,500 tons, are turned out by this company yearly for their own use and for sale to the country, also about 450 chalders of lime. Ironstone, which abounds in this district, has been begun lately to be wrought by this company, and at present gives employment to many men. But, as the mining of ironstone here is of recent commencement, and as there seems to be abundance of material in the field, the operations in this department will probably be much extended.

The whole number of persons employed by this company is not less than 180, and the amount of wages paid annually is from L. 8000 to L. 10,000.

There are other four coal and lime-works in the parish, at which there are about 20,000 tons of coal turned out annually, and about 2600 chalders of lime burned. The present selling-price of good round coal, (1837,) is 6s. 8d. per ton of 20 cwt., dross, 3s. 9d. per ton, and that of lime, 15s. 4d. per chalders of 16 bolls, for credit, and 14s. 8d. per chalders for cash sale.

The chalders of lime contains 32 Winchester bushels, each containing 2128.9 cubic inches, and ought, like all other similar articles, to be sold by this standard measure. But a practice has crept in among the lime-dealers in this, as in other places, of competing with each other who shall give the largest measure, so that

* Much less of this salt is now manufactured here than formerly, owing to the great reduction of its price in the market.

the measure of lime has become quite vague and unfixed. Justice and expediency evidently require that such a system should be discontinued, from which the public derive no advantage, and the dealers can sustain only loss. The competition should be in the lowness of the price, not in the largeness of the measure, which should be fixed and ascertained.

V.—PAROCHIAL ECONOMY.

The great majority of the people in this parish are collected in villages. Besides Lennoxtown, containing between 2500 and 3000 persons, there are several considerable villages and hamlets,—the Clachan, Haugh-head, Mount, Milton, Torrance, &c. The last-mentioned has a population, (including those who dwell in the immediate neighbourhood,) of 800. It is situate in the southern extremity of the parish, more than three miles from the parish church, and five miles from the manse. There are nearly fifty public houses in this parish,—a fact sufficiently expressive of the habits of a large proportion of the people, as also of the facility with which licenses are granted. Those whose business it is to grant licenses, and who should be guardians of the public morals, would do well to remember, that the multitude of taverns, while it indicates a great demand for spirituous liquors, also increases that demand; for every additional public-house is a new centre of dissipation, bringing the family itself and all its immediate connections into closer contact with their most dangerous and deadly enemy.

Means of Communication.—The parish is intersected by two lines of road, the one running nearly east and west, from Strathblane to Kilsyth, the other nearly at right angles from Glasgow over the Fells, to Fintry and Kippen. A coach leaves Lennoxtown every morning except on Sundays and Thursdays, and returns from Glasgow in the evening. The Forth and Clyde Canal passes near the south extremity of the parish, and the Glasgow road to Stirling by Kilsyth, runs through the south-east corner.

Friendly and other Societies.—Several Friendly Societies existed at one time in this parish; but an individual, suspected to be feigning sickness, was the occasion of dissolving them all.

The skeletons exist of two mason lodges.

An attempt was made in 1837 to establish a savings bank; but the bulk of those for whose benefit it was designed would not be persuaded.

Ecclesiastical State.—Campsie was a parish of note in Catholic times. The parson of Campsie was sacristan of the Cathedral of

Glasgow, where he resided, being one of the canons. He served the cure by a vicar. The living appears to have been great. Lamberton, Beaton, and W. Erskine, afterwards Archbishop of Glasgow, were all of them parsons of Campsie.*

The old church stood at the Clachan, where the manse and the parish school yet remain. It was small and inconveniently placed, being near the western extremity of the parish, and five miles distant from a large number of the people. The present parish church was built at Lennoxtown in 1829,—which village, besides containing a large proportion of the whole population, is also nearly in the centre of the parish—though many of the people are still three miles distant from the church. This applies particularly to the village of Torrance, which adjoins the parish of Cadder, to which it might be attached with advantage to all parties, there being plenty of room for the people in Cadder parish church, and the minister being enabled, by the small number of his own parishioners, and the proximity of Torrance, to give the inhabitants of this village, a degree of attention which the minister of Campsie, being five miles off, and having a very populous parish to attend to, can never be expected to render.

The congregation in Campsie church is numerous in moderate weather, though less so than it should be. That part of the people who dwell near are not more regular in attendance than those who are distant, but, in many cases, less so. A great number of persons go very seldom to church—many never. The excuse most frequently alleged is want of suitable clothing. To meet this evil as far as possible the three parish school-houses, situate, all of them, at considerable distances from the church, are employed on Sunday evenings as preaching stations, as is also the large new school-house

* It appears that Alwin, second Earl of Lennox, who succeeded to his father in 1165, "gave to Walter Bishop of Glasgow, and his successors in that see, the church of Campsie in his Earldom of Lennox, ad orandum pro animabus regis David et Comitum Henrici, et regis Malcolm et pro salute domini sui Willielmi regis, et domine Emergardæ reginæ, &c. &c."—*Chartulary of Glasgow*.

In Douglas's Peerage, it is stated that the church of Campsie was built and endowed by Isabella, Duchess of Albany, by charter to the Convent of Grayfriars at Glasgow, dated 18th May 1451, and the endowment is declared to be made "pro salute animæ nostræ et pro salute quondam recolendæ memoriæ dilectissimi sponsi nostri Domini Mardaci dudum Ducis Abanie, necnon, pro anima quondam Domini Duncani Comitis de Levenax, progenitoris nostri, ac pro animabus Walteri, Jacobi et Alexandri, quondam filiorum nostrorum." Mr Lapelie says it was one of the bishop's churches gifted by Donald Earl of Lennox to the see of Glasgow in the year 1270. This must be a mistake for Malcolm was Earl at that time. The first Donald that possessed the Earldom succeeded in 1333. The donation mentioned in the former extract was probably the first bequest of lands in Campsie to the church. Duchess Isabella probably erected the first church or at least a new church, and bestowed additional lands.

in Lennoxtown—in one or more of which places there is always during winter, public worship on Sunday evenings—not without the appearance of much benefit,—many persons attending the preaching stations who never come to church.

There is in Lennoxtown a Relief chapel, capable of containing about 600 persons. It was built by a few of the principal heritors, who were offended at the appointment of Mr Lapslie as parish minister in 1784.

There is a considerable Roman Catholic population in Campsie, all Irish, and amounting to between 600 and 1000 persons. A priest has resided some time in Lennoxtown, since whose coming, that part of the people have been more sober and orderly than they formerly were.

A few individuals attend Dissenting places of worship in Kirkintilloch—and the Chartists have had meetings on Sundays some time past. There is also a small body of Methodists in the parish. In my opinion, the religious and moral character of the people is improving, though more slowly than one could wish.*

* The following interesting note is copied from Mr Lapslie's Account of this parish. It is also engrossed on a blank leaf of the old session-book.

There is reason to believe the clergymen of Campsie continued Roman Catholic, and occasionally performed the Romish service in it till 1572. We find,

1. Mr Stoddart, Presbyterian minister of Campsie, 3d November 1561.

2. Mr James Stewart, settled assistant and successor, 25th March 1607.

3. Mr James Crichton, admitted 23d April 1623. He was deposed for what was called corrupt doctrine. There is a tradition in the parish, that he could walk (from the Clachan, I suppose,) to the top of the Fells in twenty minutes, eating a pease bannock. A heap of stones on the summit still retains the name Crichton's Cairn.*

4. Mr Alexander Forbes was admitted 16th December 1629, and was deposed for not conforming to the synod of Glasgow, April 3d 1639.

5. Mr John Collins was admitted 2d November 1641. He was murdered returning from the presbytery about Martinmas 1648. Suspicion fell on the laird of Belglass, a small heritor in the parish, who fled the country.

6. Mr Archibald Dennistoun was ordained 30th March 1649, and deposed by the protesters in 1655. He was restored in 1661, and died 1679. There is a story told of him that, in the year 1655, he had begun a discourse on a text, and had half finished the first head. In the year 1661, when restored, he took up his discourse where he had left off, remarking, that "the times were altered, but the Gospel was still the same."

Principal Baillie says of Dennistoun, "He, for his part, saw nothing evil of the man. The protesters put in his room a Mr John Law, a poor *baxter culien*, who had but lately left his trade, and hardly knew his grammar; but they said he was *gifted*."

7. Mr John Law was ordained by the protesters in 1656, ejected in 1661, and restored in 1668. He never again officiated in Campsie.

8. Mr George Miln was instituted 24th June 1681. He was turned out at the Revolution, and was exceedingly ill used. The worthless part of the parish, having risen in a mob, broke his furniture, and threatened his person. By way of retaliation, this gentleman carried away the records of the parish.

* "*Rem ausus plus famæ habituram apud posteros quam fidei.*" The feat, at least, far exceeds the powers of such men as live in this age of the world.

In 1618, the stipend was 2 chalders of meal and 600 merks. In 1649, an augmentation of one chalders of meal, and 100 merks was granted. The stipend was augmented in 1817 to 18 chalders, meal and barley, in equal quantity. There are nearly L. 700 a year of unexhausted teinds. An augmentation of 2 chalders, in which all the heritors concurred, was, on the 20th of February 1839, sanctioned by the Court of Teinds. The manse is about forty years old. The old manse, situate behind the present, is converted into offices. The glebe is said to be $5\frac{1}{4}$ acres. A grass glebe of $5\frac{1}{2}$ acres additional was allocated in 1646; but, owing to the turbulence of the times, the minister does not appear ever to have been in possession. In order to make up to him the want of a grass glebe, a few of the larger proprietors rented for the late incumbent a park of seven acres.

Education.—Until the last few years the state of education was exceedingly low, and the number of persons who could not write or read lamentably great. This unfortunate state of things is rapidly in the course of being removed, though to remove it effectually will require great attention and continued efforts for many years to come.

The parish school, as already stated, is situated at the Clachan. Conformably to an Act of Parliament, 43 George III. c. 54, the heritors of Campsie resolved, in 1803, to grant an allowance to two additional schools, to wit, that at Craighead, and that at Torrance. The salary at present payable to the schoolmasters is three chalders of oatmeal, at the average price dur-

9. Mr John Govan, who had been imprisoned in the Bass, was ordained 5th December 1688, and died in 1729.

10. He was succeeded by his nephew, Mr John Forrester, who died September 1731, aged 25.

11. Mr John Warden, son of the minister of Gargunnoch, was ordained 3d April, 1782. This gentleman was translated first to Perth, and then to the Canongate, Edinburgh.

12. Mr William Bell, ordained 24th September 1747, and died 8th May 1783. Many of the old inhabitants yet remember and speak of Mr Bell, who seems to have been an industrious and conscientious clergyman.

13. Mr James Lapellie, succeeded November 27, 1783, and died 11th November 1824. He was a native of Campsie, and, though not without many faults, a man of genius and of extensive and various information. The old Statistical Account of this parish written by him, is not inferior to any article in that work. He had an uncommon flow of natural eloquence; and many of his striking observations are still remembered and repeated by the people.

14. Dr Norman Macleod was admitted August 11, 1825, and translated to one of the Gaelic churches in Glasgow 1836.

15. The present incumbent was admitted 5th May 1836.

Thus fifteen clergymen have held the living of Campsie since the year 1582, being somewhat less than sixteen years each. Of the number—two were translated—five deposed—and one murdered.

ing twenty years, commencing 1828, or L. 17, 2s. 2½d. per chald. The interest of a sum of L. 270, bequeathed by Robert Blair, Esq. of Glasgow—has been enjoyed by the parish school-master at Clachan since the year 1825. The schoolmaster at Craighead also is in possession of the interest of the sum of L. 50, bequeathed by Mr James Young, of the parish of St John in Bedwardine, in the county of Worcester, Chapman, in the year 1729.

The school-house at Craighead having fallen into disrepair, has been rebuilt on a much enlarged scale, according to a very neat plan, furnished by Mr Galloway, factor to Mr Lennox. To this important object the chief subscribers were Mr Lennox and Messrs David and Henry Inglis.

The Messrs Inglis, with a laudable anxiety for the education of the young persons employed in their printfield, and residing in its neighbourhood, also allow L. 20 per annum to the master of Craighead school, on condition of his teaching a Sunday school.

In Lennoxtown, the want of a large and superior school has long been felt; and this want has now been supplied by the erection of a splendid school-house, containing two very large rooms, with all accompanying accommodations. The plan of this school-house, like that at Craighead, was furnished by Mr Galloway, to whose taste it is highly creditable, and who kindly superintended the erection of both these buildings.* The chief contributors to this important undertaking were Mr Lennox and the Messrs DalGLISH, both of which parties have expended a large sum of money upon it; Mr Macintosh; Mr Stirling, Craigharnock; Mr M'Farlan, Bancroche; and many of the other inhabitants have also assisted in a work which all felt to be important. At present the one room is used as a juvenile school, and is attended by upwards of 100 pupils. In the other an infant school has been tried during the past year with very encouraging success.

Besides these, there are two or three schools on the teachers' own adventure, and two or three small female schools. The whole number of children attending day-schools, at present, in the parish, including the infant school, is about 520, exclusive of the children who are taught during work hours in Lennox Mill, and those taught in evening-schools and Sunday-schools.

In all the schools the common branches are taught, with grammar, geography, &c. A few are learning Latin, Greek, and

* It is right to acknowledge that I have received large assistance from this gentleman in drawing up this account of the parish of Campsie.

French. We are at present uncommonly fortunate in our teachers; so that I am sanguine in the expectation, that, in the course of a few years, there will not be an inhabitant in this parish that cannot read and write.

Libraries.—There are two libraries in this parish. The Campsie Subscription Library was established in 1837, and consists of a good selection of books. It is the property of subscribers to the amount of L. 1 or upwards. The Campsie Popular Library originated the same year, and belongs to subscribers to the amount of 5s. It also contains a considerable number of books. The terms of reading are very low in both.

Poor's Funds.—It appears on a retrospect of twenty years that, at the commencement of that period, there were 30 individuals on the roll of paupers in the parish of Campsie receiving regular monthly allowances: in 1827, there were 44; at present, there are 70, besides those receiving occasional relief. The expenditure on account of the poor amounted in 1817 to L. 136; in 1827, to L. 148; in 1837, it exceeded L. 226. The regular sources from which the sums were derived necessary to meet these disbursements were, 1. collections at the church doors; 2. dues of proclamations and mortcloth; 3. perpetual annuity of L. 15 from Woodhead; 4. interest of L. 500 lent on bond. Previous to the year 1832, the money required for the poor, in addition to these branches of income, was supplied by voluntary contribution. In 1831, a subscription, according to their valued rent, having been set on foot, certain of the heritors refused to contribute their proportion so long as there existed a lying fund belonging to the poor. This fund was accordingly drawn upon, till 1838, when it was exhausted. The necessity of a legal assessment has been in the meantime avoided by a voluntary contribution by the principal people in the parish, together with the heritors—to raise the requisite funds for the current year.

May 1841.

PARISH OF KIPPEN.

PRESBYTERY OF DUNBLANE, SYNOD OF PERTH AND STIRLING.

THE REV. WILLIAM ANDERSON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name and Boundaries.—THE name Kippen is said to be derived from a Gaelic word signifying a promontory ; and is supposed to be descriptive of the situation of the village.

The figure of the parish is irregular. Its greatest length is about 8 miles, and its breadth is from 2 to nearly 4 miles. It is bounded on the north by the river Forth, which separates it from the parish of Port and the newly erected parish of Norries-town ; on the east, by Gargunnock ; on the south, by Balfron ; and, on the west, by the parish of Drymen. It lies chiefly in the county of Stirling ; but, in different places, it is intersected by portions of Perthshire, which run across it from north to south, and form nearly a third part of the parish.

Meteorology.—The temperature of the air is rather cold, owing to the generally northern aspect of the parish, and the open and extensive plain below, which stretches chiefly toward the north and east. The climate is somewhat damp, from the vicinity of the parish to high mountains, and its consequent exposure to frequent showers ; but it is by no means considered unhealthy. The showers, though frequent, are seldom very heavy, or of long continuance. Snow seldom falls to any considerable depth, nor does it in general lie long. Consumption has, perhaps, been the most common and fatal disease for a considerable time past.

Hydrography.—Forth, the only river connected with this parish, and which divides it from the parishes of Port and Norries-town, is here confined within narrow and deep banks ; and its current so slow as hardly to be perceptible. Its waters are generally dark and muddy, from the quantity of moss which is floated into it.

There is, in the moor of Kippen, a small lake of water called

Lochleggan, about a mile in circumference, and mostly surrounded with wood. A considerable stream issues from it, which, increasing as it proceeds, forms the burn of Broich, the waters of which, after passing through a beautiful glen close by the House of Broich, are chiefly employed in floating away the patch of moss in the plain below.

The burn of Boquhan, which forms the boundary between the parishes of Kippen and Gargunnock, "descending from the rock of Ballochleam, meets with the red sandstone," (says the late General Campbell in notes quoted in the last Statistical Account), "through which it has opened a passage, and wrought its soft materials into a number of curious shapes, such as the wells and caldrons of the Devon." After running through a beautiful and well-wooded glen, along which the proprietor of Boquhan has formed extensive and delightful walks, it empties itself into the Forth at the Bridge of Frew.

In several places the parish is intersected with glens and rivulets, in which there are some beautiful cascades.

Geology and Mineralogy.—The moor of Kippen abounds with red sandstone, which is much used in building, and is occasionally conveyed to a considerable distance for that purpose. It is soft and easily wrought, and becomes hard and durable, on being exposed to the weather. On the southern boundary of the parish, limestone is found; but, owing to the distance from coal, it has seldom been wrought. It is supposed that coal may be obtained in the immediate neighbourhood; but any attempts which have been made to obtain it, have as yet been unsuccessful.

In respect of soil, this parish is divided into what is commonly called carse and dry-field. The former consists of the low ground which lies on the south side of the Forth, between that river and the rising ground. It is of unequal breadth,—from half a mile to a mile, and in some places more, and forms a part of that extensive plain which reaches from the neighbourhood of Gartmore, on both sides of the river, to Stirling. In three different places in this parish, there are patches of moss still covering not less than 300 acres of rich carse ground; and, there is reason to believe, that the whole plain was at one time under moss. Indeed, from substances found in the soil, and from the aspect of the higher grounds by which it is bounded, it seems probable that, at some former period, it was covered by the sea. And after the waters had receded, the plain appears to have been occupied with trees and

shrubs, by the fall and putrefaction of which the moss was in due time formed. Accordingly, oaks of a great size are still found in the soil from which the moss is removed. On some of these oaks, the marks of an axe or hatchet are seen, which serve to show that they were cut down by the hand of man. And it is highly probable, that they were cut down chiefly by the Roman legions employed in clearing away the forests in which the Britons and Caledonians concealed themselves from their enemies, and from which, as they had opportunity, they sallied forth against them.

The carse ground is a rich clay, and is, in general, well cultivated; and, in favourable seasons, produces excellent crops of wheat, and beans, and oats. There is along the banks of the Forth, a narrow haugh or holm which is very fertile, and better adapted to the growth of potato and turnip than the strong clay soil. From the carse the land rises at first abruptly, and then very gradually for about a mile, and in some places considerably more. This elevated part of the parish is called the dryfield, and forms the largest portion of the cultivated ground. The soil is in some places loamy and sandy, and in others gravelly. It is generally well cultivated and enclosed, and in many places produces excellent crops. The land toward the summit of the rising ground, and on its southern declivity, is lighter and less fertile; and it has been considered more advantageous to lay a number of acres of it in pasture. Along the summit of the gently rising hill, on the northern declivity of which the largest portion of the cultivated land is situated, there is a heathy moor, which runs almost the whole length of the parish, and extends into the parish of Balfron. From those higher grounds, and, indeed, from many parts of the parish, an extensive and beautiful prospect is presented to the view of the spectator, of fertile fields, and ornamented seats of the proprietors, encompassed with a rugged range of the Grampian mountains, reaching from Benlomond to the Ochil Hills, and forming the northern boundary of the widely extended plain.

Botany.—There are some extensive and thriving plantations in this parish, especially on the estates of Mr Campbell of Boquhan, Mr Stirling of Garden, and Mr Erskine of Cardross. The wood, on the higher grounds, is chiefly larch and Scotch fir. A considerable part of the eastern extremity of the moor has been planted with these, and similar sorts of trees, which are thriving well; and more of the moor is likely to be planted soon. Oaks, ash, and

elm thrive well on the lower grounds, and are extensively planted. On the banks of the glens, there are considerable portions of thriving coppice-wood.

There is close by the House of Broich, one of the finest yew trees in Scotland. It is about 50 feet in height, and the circumference of the trunk is above 10 feet. It is of a conical form, and the lower branches extend down to the ground, and overspread a space, the circumference of which is not less than 200 feet. It is supposed to be about 900 years old.

II.—CIVIL HISTORY.

Historical Notices.—In the year 1676, the Sacrament of the Lord's Supper was dispensed, in the night, to a very numerous assembly at Arnbeg, about a mile west from the village of Kippen. During the persecution that prevailed in the reign of Charles II. and James II., the inhabitants of this parish were subjected to severe hardships. Mr Ure of Shirlarton, a gentleman highly distinguished by his piety and zeal, suffered much for conscience sake, and made many narrow escapes from the hands of his persecutors. He signalized himself by his bravery at the battle of Bothwell Bridge. A memoir of him, chiefly drawn up by himself, has been published by the late celebrated Dr M'Crie.

The late Mr James Miller, preacher of the Gospel, Edinburgh, who was a native of this parish, is deserving of notice, as a good man and a generous benefactor to the young men prosecuting their studies, with a view to the holy ministry. He mortified a sum of money, the interest of which is to be paid as a bursary to two students during their attendance, respectively, at the classes of Greek, logic, moral and natural philosophy, in the Universities of Edinburgh and Glasgow. The amount of the bursary is, to the former, L.24, and to the latter, nearly the same sum. The kirk-session of Kippen are the patrons, and the election is directed to be made on his father's grave-stone in the church-yard of Kippen.

Land-owners.—James Stirling, Esq. of Garden; William C. C. Graham, Esq. of Gartmore; Henry F. Campbell, Esq. of Boquhan; David Erskine, Esq. of Cardross; Buchanan Leckie, Esq. of Broich, and William Galbraith, Esq. of Blackhouse and Little Kerse, are the principal proprietors in this parish. There are a number of other respectable land-owners, some of whom reside upon their properties.

Parochial Registers.—There are no records extant previous to 1700. From that date to 1745, the parochial registers have been kept with considerable accuracy. From 1745 to 1757, the regis-

ter of marriages has been neglected ; and from that period also, many parents, connected with the Secession church, have omitted the registration of the names of their children. No proper register of deaths is kept in the parish.

Antiquities.—The names and situation of several places in the parish plainly show, that, in former times, they had been places of strength. Thus there is the Castle of Arnfinlay ; and also the tower of Garden, no vestiges of which, however, now remain. And there are several small heights in the parish to which the name Keir is applied, which bear the marks of some ancient military works, such as Keir-hill of Glentirran ; Keir-hill of Dasher ; Keir-brae of Drum ; Keir-knowe of Arnmore ; and Keir-brae of Garden. Various opinions have been entertained concerning the origin and use of these works ; but no satisfactory account can be given of them.

III.—POPULATION.

The population of this parish is nearly as great as it appears to have been at any former period ; for although, by the enlargement of the farms, the number of people, in the country part of the parish, is diminished, the population of the villages has increased. The encouragement, for some time, given to weaving, and the demand still for labourers, in the neighbourhood, have served considerably to increase the number of inhabitants in the villages.

In 1798 the population was 1777

1801 1722

1811 1893

1821 2029

1831 2085

Proprietors of land of the yearly value of L. 50 and upwards are 15 in number, of whom not more than five reside in the parish, 56

The number of unmarried men, bachelors, &c. in the parish, above 50, and women, &c. above 45, 125

The average number of births yearly for last seven years, 45

marriages, yearly, do. 16

deaths, &c. may be 20

of persons under fifteen years of age, 223

of persons above seventy do. 57

There is a boy in the parish, and also a girl, who may be considered fatuous. They are connected with the labouring classes, and are supported by their parents.

The people, on the whole, enjoy in a reasonable degree, the comforts of life, and are contented with their situation and circumstances ; and they are in general intelligent, moral, and religious.

IV.—INDUSTRY.

Agriculture and Rural Economy.—The number of imperial acres in the parish which have been cultivated, is 5238 ;—of these 1807 acres are carse land, and the remaining acres are dryfield. The

number of acres which never have been cultivated, and which remain constantly waste, or in pasture, is about 4256, about 2000 of which belong to the extensive moor in the higher part of the parish, and to the patches of moss which still remain to be cleared away from the lower grounds : they are of very little value. There are upwards of 300 acres in these patches of moss, which might be profitably brought under cultivation. The expense of clearing away the moss from each acre, is about L. 28 ; and the rent of the acre when cleared and cultivated, is nearly L. 2. There are 200 acres of undivided common connected with the above moor. The number of acres under natural wood is about 62 ; and under plantations 500.

Rent of Land.—Some of the carse land is let at about L. 2, 10s. per acre ; and some of the dryfield is let at more. But the average rent of the arable land, including the carse and the dryfield, or towards the summit of the rising grounds, may be about L. 1, 5s. ; and the average rent of the remaining portion of the arable land may be about 7s. per acre.

Rate of Wages.—The rate of wages to farm-servants is from l. 12 to L. 14 per annum, with victuals ; and to female servants, L. 6. The wages of day-labourers are 1s. 6d. with victuals, per day, for men ; for women 1s. The wages of wrights and masons are 2s. 6d. per day, with victuals.

Husbandry.—The farm-buildings are generally good, and the lands, especially in the lower parts of the dryfield, and in the carse, are well enclosed. The crops are chiefly wheat, oats, barley, and beans ; but wheat and beans do not, in general, produce an abundant crop in the dryfield. Wedge-draining is now very common in the carse, and contributes greatly to its fertility. The expense is often defrayed, in favourable seasons, by the abundance of the first crop. Draining is in very general use in the dryfield, many parts of which are greatly improved by means of it.

The Ayrshire breed of cows prevail in this parish, and great attention is paid to improving them.

Produce.—The average gross amount and value of raw produce raised in the parish, as nearly as can be ascertained, is as follows :

Produce of grain of all kinds, . . .	L. 9188	13	0
potatoes and turnip, . . .	1807	12	0
hay, meadow and cultivated, . . .	1414	12	0
land in pasture, . . .	2439	0	0
miscellaneous produce, . . .	1219	10	0

Total yearly valued of raw produce, L. 16069 7 0

A distillery in the parish pays of duty to government, L.17,000 yearly.

V.—PAROCHIAL ECONOMY.

Market-Towns.—The nearest market-town is Stirling, which is about ten miles distant. There are two villages in the parish,—Kippen and Buchlyvie, the former of which contains 600, and the latter 400 inhabitants. They are five miles distant from each other.

Means of Communication.—There is a daily post to Kippen, and one six days in the week to Buchlyvie. The road from Stirling to Dunbarton runs about seven miles through the parish, and now passes along the level plain immediately below the village. A good turnpike road from Kippen to Glasgow runs more than three miles through the parish in a south-west direction. There are two bridges over the Forth, on the boundary of this parish; one at Frew and another near Cardross, both in good repair; along the last of which, the road from Callander to Glasgow passes, and runs across the centre of this parish.

Ecclesiastical Estate.—The parish church is not inconveniently situated, in respect of the bulk of the population now connected with it. It was built in 1825, and is in a good state of repair. It affords accommodation for 800 sitters. There are only four or five free sittings in the church. The seats are divided among the heritors, according to their respective valuations, who, after reserving family seats for themselves, have appropriated the remainder to their tenants. The manse was built in 1706, and was completely repaired, and received a large addition in 1814; and it is now a commodious dwelling.

The glebe is four acres Scots in extent, and may be worth about L. 12.

The stipend consists of sixteen chalders,—half meal and half barley,—paid according to the rate of the highest fiar prices of the counties of Stirling and Perth, with L. 10 for communion elements.

In 1835, a new church was built at Buchlyvie, in connection with the Church of Scotland, which contains 350 sitters. It is intended to accommodate those of the parishioners of Kippen and Drymen, who are at a distance from the parish churches. And accordingly, a district of this parish, containing 700 inhabitants, and a district of Drymen parish, containing 400, have been assigned to it, and it is now ecclesiastically erected into the parish of Buchlyvie; the minister of which is paid from the seat rents and the col-

lections at the church doors, and receives L. 70 yearly, besides a small sum for communion elements. There is also, at Buchlyvie, a meeting-house in connection with the United Secession church, which was built in 1751; and contains between 400 and 500 sitters. The minister is paid also from the seat-rents and collections; and his stipend probably amounts to about L. 100 yearly. There are about six Episcopalians in the parish, and three Roman Catholics.

The average amount of church collections yearly, for religious purposes, is about L. 20.

Education.—There are seven schools in the parish; two of them parochial—Kippen and Claymires; and four of them unendowed—one at Kippen, one at Arnprior, and two at Buchlyvie, the teachers of which are paid entirely from the school fees; and a female school, the mistress of which receives, from subscriptions by respectable individuals around, L. 20 yearly, besides half of the school fees. The schoolmaster of Kippen receives of salary 500 merks Scots; and the schoolmaster of Claymires 100—being to the one L. 27, 15s. 6½d., and to the other, about L. 5, 11s. 1½d. The ordinary branches are taught. Reading English is 2s. 6d. per quarter; writing, 4s.; arithmetic and book-keeping are 5s.; and Latin, 7s. 6d. The parish schoolmaster has the legal accommodation.

The people are in general alive to the benefits of education, and desirous to have their children properly instructed.

Libraries.—There are two small libraries in the parish—a subscription library, and a gratis religious one; both of which have received considerable attention from the inhabitants.

Poor and Parochial Funds.—The average number of persons receiving parochial aid is about 32; and the average sum paid to each of them monthly is about 5s. The annual expenditure for the support of the poor is at present about L. 120. The money arising from the collections at the church door, and from marriage-dues, and the proceeds of mortcloth, with interest of L. 450, was, till lately, sufficient for defraying the expense of supporting the poor. But the interest of the money having ceased to be paid, from its being lent on insufficient security, the heritors assessed themselves for the deficiency in the poor's funds; and some of them having had recourse on their tenants for the half of the assessment, they withheld their collections, which necessarily increased the amount of the assessment; and from that source more

than half of the money required for the support of the poor is at present derived. All the heritors have now ceased to demand any part of the assessment from their tenants; but it will be difficult to bring them to give their collections as formerly. A considerable part of the L. 450 has lately been recovered, and an additional bequest of L. 150 been received for the poor; and were the people to return to their former habit of giving collections, the assessment might be soon discontinued; which would be very desirable, as assessments no doubt serve to overcome the disinclination of the poor to receive parochial relief.

Fairs.—There are several fairs held in the course of the year both in Kippen and Buchlyvie; but, excepting two or three of them, they are poorly attended. The large market, chiefly for black-cattle, which was formerly held at Balgair, in the parish of Balfron, is now held in the moor of Kippen, about three miles from the village, in the month of June; and two other considerable markets for a similar purpose are held in the same place, the one in March, and the other in May.

Inns.—There are no less than 11 inns or public-houses in the parish. They have, no doubt, to a certain extent, a demoralizing influence, and it would be desirable that their number should be diminished.

Fuel.—The fuel used in the parish is coal, driven from Bannockburn, a distance of twelve or thirteen miles; and peat procured from the neighbouring mosses. The peat, in general, is of excellent quality, and a considerable quantity of it is used for fuel; but coal is perhaps in fully more general use.

MISCELLANEOUS OBSERVATIONS.

This parish has been much improved since the publication of the last Statistical Account, in respect of the extent of plantations, and the progress of draining, and the superior system of husbandry which is now pursued. Thrashing-machines are now in general use; and a reaping-machine has lately been introduced into the parish, which seems to give satisfaction; but it is specially suited to the carse grounds, which are level, and free from stones. The distance from coal and lime is a great inconvenience connected with this parish. Some communication by means of a canal or railroad along the plain, would be a great improvement to this district of country, and would be highly conducive to the comfort of its inhabitants.

Drawn up March 1839. Revised May 1841.

PARISH OF SLAMANAN.

PRESBYTERY OF LINLITHGOW, SYNOD OF LOTHIAN AND
TWEEDDALE.

THE REV. ALEXANDER DAVIDSON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

It is recorded in Robertson's Index, that, in the year 1470, and reign of James II., Lord Livingstone obtained a grant of the lands of Slamanan under the Great Seal. His Lordship's successors, the Earls of Linlithgow and Callander, feued out these lands to different proprietors, the superiority of which remained in the Callander family till the year 1715, when they were forfeited to the Crown, together with the patronage of the church. But it is uncertain whether the foresaid charter contained a grant of all the lands, or only a part, as the papers of many of the proprietors bear that their lands were feued from Lord Torphichen. In proof of this we find, that Robert II. gave a charter to James de Sandelands of Slamanon More, in Stirlingshire, to be holden by the said James, and Joanna, the king's daughter, his spouse, and their heirs. As the lands of the parish are sucken to two mills, it would seem that Lord Torphichen was proprietor of one-half of the parish, and the Earl of Callander the other.

Name.—This parish is called Slamanan and St Laurence. The former is generally used, and the latter is only found in the records of session, and in the presentation issued by the Crown, "the church and parish of Slamanan, otherwise St Laurence." It is highly probable that St Laurence was not the original name of the parish, but only of the church, and the lands adjoining to it; for a little to the south-east of the church, there is an excellent spring of water which still goes by the name of St Laurence's Well. As places of worship were frequently denominated from particular saints, St Laurence would appear to have been the tutelar saint of this parish. But the etymology of the name Slamanan is, like that of many other proper names, uncertain, and merely con-

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jectural. Some writers have supposed that the word signifies slender river, that is, "*place on slender part of river.*" Others have derived it from the following circumstance: that when the Earl of Callander sent to plough a certain portion of the parish, (then a moor,) he inquired of the servant on his return, how it would work, to which the answer was, "It would slay both man and mare." Others have supposed, that, from its vicinity to the Caledonian forest, it had often been the scene of conflict. In proof of which, there is a rising ground a little to the south of the church, called Castle-hill, where a fort once stood, but of which no vestige remains, excepting the farm-house, which still goes by the name Castle-hill; and a little to the eastward of this hill, there is another rising ground where there are still some remains of a trench, and which goes by the name of Kill-hills, because of the numbers which were supposed to have been slain there. Besides, there were adjacent to these, two cones of earth about forty yards separate, which are supposed to have been raised as monuments of peace, like the two at Dunipace. One of these still remain, and is evidently artificial; the other was levelled, and the church of St Lawrence built upon it; the former still goes by the name of the moat. The names of these places, with others of similar import, such as Balcastle, Balquhatston, &c. confirm the belief, that these grounds have been the arena of many a severe battle. In the session records, the name is always spelt Slamanna, dropping the letter n. It is highly probable that the name is of Gaelic origin, purporting *brown, or grey, or long heath*, for the parish must have been originally covered with heath.

Situation and Extent.—This parish is bounded on the north-west by the parish of Cumbernauld; on the west and south-west, by the parish of New Monkland; on the east and south-east, by the parish of Torphichen; and on the north and north-east, by Muiravonside, Polmont, and Falkirk. At the north-west extremity there is a point where three counties meet, viz. Stirling, Dumbarton, and Lanark; and on the south, there is another point where the counties of Stirling and Lanark meet with the county of Linlithgow. The parish of Slamanan lies on the south of the water of Avon, and is from 5 to 6 miles in length, and about 3 in breadth. In 1730, when the parish of Polmont was disjoined from that of Falkirk, a considerable portion of that parish which lies on the north of the Avon, was annexed, *quoad sacra*, to the parish of Slamanan, making the whole parish upwards of 6 miles in length,

and nearly 5 in breadth. The heritors of the annexed divisions are bound to maintain the church and the church-yard wall of Slamanan for 100 years, and the poor of that district were supported by one-third of the collections, and occasional assessments. But the wise men of this generation have disturbed this arrangement, and the heritors in the annexation are now assessed along with the other heritors, in maintaining the poor in that parish.

Rivers and Lochs.—The river or rather the stream Avon, which runs from west to east, through this parish, takes its rise from a moss in the parish of New Monkland, and a small tributary stream from Fannyside loch, in the parish of Cumbernauld, and another from the Annexation in Moss Candle. These streams, though small in summer and in dry weather, yet swell to a great extent after a fall of rain, and the breaking up of a snow storm,—so that the Avon often overflows its banks, and exhibits the appearance of an estuary. When these floods happen during summer or harvest, great damage is done to the growing corn and the meadow hay: and so offensive is the mud which these mossy waters deposit, that the cattle will sooner starve, than eat either the meadow hay or the straw, after being inundated. There are two lochs in this parish, called the little and the great Black Lochs. The latter is the principal feeder of the reservoir formed on the lands of Auchingray, for supplying the Monkland Canal. There is another called the Ellrig Loch, lying to the north-east of the Annexation. There are perch and eel found in all the lochs, and good sizeable trout in the Avon, many of which are annually destroyed, when the pools used for steeping lint are emptied into the Avon.

Soil.—The soil in the vale of the Avon yields chiefly excellent crops of meadow hay, and when not flooded proves wholesome and fattening for cattle; but the crops are often damaged by the rains which usually fall in time of cutting. As the grounds rise in regular ridges towards the south, they yield good crops of oats, some barley, and occasionally a little wheat. Some of the lands bring L.2 per acre, others L.1, 10s., others 15s., some 7s. 6d. per acre. The lands towards the western district of the parish, being of a black mossy nature, yield but indifferent crops, when the season happens to be wet and cold. The number of bolls from an acre in a favourable season, varies considerably. The best soils produce, at an average, 6 bolls, others 5 and 4, and even 3 an acre. The surface of the parish being undulating, and the ridges lying east

and west, the rains and storm beat with great severity in the winter months, as these ridges are 600 feet and upwards above the sea level at Grangemouth. Between most of these ridges, there is a considerable field of moss, under which is found nothing but coarse sand, or a reddish till, which is very unfriendly to vegetation. Towards the south and south-west of the parish, there are several hundreds of acres, entirely moss, varying from three to twelve feet in depth, the substratum being chiefly sand, affording no inducement to remove it. The farms in the parish are in a much better state of cultivation, than they were in fifteen years ago. The ploughing competitions in the spring have had a good effect in stimulating the young to industry, and to a higher improvement of their lands. Of late years, the resident heritors have paid particular attention to their dairies, and in rearing young cattle, from the produce of which the tenant chiefly pays his rent. Though the iron plough be in general use in the parish, yet the old Scots plough seems to have the preference both in opening and making a wider furrow.

II.—CIVIL HISTORY.

Parochial Registers.—The oldest register of kirk-session commences 1681. There are several loose papers, apparently communion-rolls, bearing date 1635.

Valuation and Rent—The valuation of the old parish in the cess books, is L.2349, 11s. 7d. Scots, and the rental in 1771 was estimated at L.3092, 6s., which is somewhat more than the present rental. The valuation of the Annexation is L.1066, 13s. 1d. Scots, and the rental in that year was about L.1147, 6s. which is about the present rental. There are 25 resident and 14 non-resident heritors, and in the annexation, 7 resident, and 5 non-resident heritors. The principal proprietors in the parish and Annexation are, Mr Carrick Buchanan of Drumpellier; Mr Forbes of Callendar; Carron Company, and Captain Fergusson; Mr Waddell of Balquhatston; Mr Ralston of Ellrig; Mr Taylor of Southfield. They are all non-resident, with the exception of Mr Ralston and Mr Waddell. Some of these lands have been in the possession of the same families from the period when they were first feued.

III.—POPULATION.

Amount of population in 1801,	.	923
1811,	.	993
1821,	.	981
1831,	.	1093

Number of families in the parish in 1831,	212
chiefly engaged in agriculture,	124
trade, manufacture, or handicraft,	68

IV.—INDUSTRY.

The raw produce of this parish varies with the seasons, very considerably. When the spring weather is favourable for sowing, and the months of June and July warm, so as to mature the crop in the month of September, the produce amply compensates the labour of the farmer; but when frosts attack the corn, as they occasionally do in September, before it is ripe, the produce is very limited, and from that cause is rendered unfit for use. This was particularly so in the year 1836, and year 1838, when the corn in the poorer districts yielded only 7 or 8 pecks of meal, and that in the richer about 12 or 13 pecks per boll, after deducting the mill dues, which is a peck per boll. The average of four years prior to 1836 of the number of bolls of oats was about 7570, and 180 bolls of barley of the Stirling new measure. The produce of the Annexation may amount to 2767 bolls of oats, and 120 bolls of barley. The quantity of potatoes raised in favourable seasons, is very considerable. There are at least 3000 bolls, including the annexation. The quantity of cabbages and turnips is very extensive; but the produce is very irregular, from the nature of the climate, of which they who live in favoured districts can form but little conception. There were formerly very considerable crops of lint raised in the parish, and the quality was understood to be much finer than what is now raised. The reason assigned for this deterioration in quality, is that the ground for lint is over-limed; still the quantity sown is very considerable, and the return abundant in a good season. Several proprietors have set a spirited example to others, in dividing their lands, in draining, and enclosing them by many judicious belts of planting, so that in a few years their estates will attain a much higher state of cultivation. Mr Ralston of Glenellrig, who is a resident heritor, has been at great pains in laying out the grounds in the vicinity of his mansion house; and the farm-steadings which he has lately erected on his estate may vie with any of the same class in the country both for neatness and convenience. Mr Waddell of Balquhatston has commenced to make similar improvements on his estate. Mr Storie of Bankhead has made a very great improvement on his estate, in draining, planting, and in laying out his fields. The great distance from the Bathgate and Cumber-

nauld lime-works, and the indifferent roads, is a great obstruction to the rapid improvement of this parish.

V.—PAROCHIAL ECONOMY.

Greater facilities will now be furnished for promoting the general industry and prosperity of the parish, by means of the railway passing obliquely through the parish. This railway branch diverges from the Ballochnie near Stanrigg, about three and a half miles to the north of Airdrie, and extends to the Union Canal at Causeway end, and nearly three miles to the west of Linlithgow, a distance upwards of twelve miles. The railway enters the parish at the junction of the counties of Lanark and Stirling, a little to the west of the farm of Lodge, and, intersecting it about the centre, proceeds eastward till near Bankhead, by crossing the Avon water, the boundary of the parish, by an elegant new bridge, into that of the parish of Muiravonside in that direction. The length of railway in the parish of Slamanan is about three and two-third miles, which, at an average costing £10,000 per mile, gives about £37,000 as the expenditure in the parish. Since the commencement of the railway, there have been different bores made on the lands of Balquhatston, for ascertaining the nature of the metals, and after a depth of 25 to 30 fathoms and upwards, there have been found several seams of coal from 1 to 3 feet thick. A pit has lately been opened, and a steam engine erected by Messrs J. Russell of Leith, tacksmen of the coal; and at the depth of 12 fathoms have found a seam of good coal, 3 feet thick, with a freestone roof. About twenty-five workmen are employed, and nearly fifty tons daily of coal are conveyed to market by the railway, the selling price being 4d. per cwt. on the hill. Other trials in different districts of the parish have recently been made, and smithy-coal and abundance of fine freestone have been found. Over the whole of the parish as well as the Annexation, there is abundance of coal and ironstone, which is accounted valuable, yielding 33 per cent.; and the Strathavon yields ironstone of 36 per cent, and coal 17 per cent., according to the analysis of Dr Hugh Colquhoun. The only going coal at present is on the lands of Balquhatston and the Lodge, and rents at £25 annually.

In this parish there are no villages, only three places where there are few houses, close by the church, Balcastle, and the other to the east of the parish, where two roads intersect each other, and gives to the village the name Cross Roads. The nearest market-towns are Falkirk and Airdrie.

Ecclesiastical State.—The church was rebuilt in the year 1810, and its site is nearly central for the parish in general, and for the accommodation of the annexation. It contains upwards of 700 sitters. The manse is old, and bears the mark of being at least 150 years old. It received an addition about forty-five years ago. The glebe consists of upwards of 13 acres arable, and 2 grass. The stipend amounts to £.247, 18s. and £.8, 6s. 8d. for communion elements. Mr Waddell of Balquhatston, and Mr Ralston of Ellrig presented, three years ago, two very handsome communion cups for the use of the parish, in addition to two which were given by Messrs Mitchell of Balmitchell 130 years ago. There are no other places of worship in the parish. The population is a church-going people, with very few Dissenters.

Education.—There are two schools in the parish, the parochial and a private school. The branches of education taught in the parish school are, English, writing, arithmetic, book-keeping, mensuration, Latin and Greek. The salary is the maximum, and there is a glebe of one acre attached to the school. The fees are from 2s. 6d. to 5s. per quarter. In the private or Easterdykehead school are taught the common branches, reading, writing, and arithmetic. The school fees are 3d. a week. The number of scholars at an average is about 45 in the winter season, but less in summer.

Poor.—The number of poor persons who receive monthly charity are at an average from three to four, and the sum allotted varies according to circumstances. The three at present on the roll receive each 6s. 9d. per month. There are no public markets in the parish. And the fuel is most abundant, both of coal and excellent peat.

MISCELLANEOUS OBSERVATIONS.

There are few parishes where so little change has taken place since the last Statistical was drawn up, as in this parish. There have been no new roads, no public works, and no manufactures of any kind in the parish. Agriculture, however, has undergone a most decided improvement. The railway being now finished, and a year nearly in operation, the minerals have become an object of acquisition, the parish will increase in population by the erection of villages, and thereby an additional stimulus will be given to agricultural pursuits. It would contribute greatly to the prosperity of the parish, if, in the act of boring, limestone could be found, as there must be limestone in the parish, from occasional stones being found in the different streamlets, and from a property in

the south of the parish being called Limuridge. There is abundance of freestone for building in the parish, and excellent whin rock throughout the parish, and likewise in the Annexation, from which most of the blocks for the railroad have been furnished. Two years ago, a line of turnpike road from Falkirk to Airdrie was surveyed, but the nature of the ground will render such an undertaking very expensive. The ready communication from east to west by the railway, will, in a great measure, supersede the necessity of a cross turnpike through the parish.

Drawn up September 1839.

Revised May 1841.

PARISH OF AIRTH.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. JOHN MACGACHEN, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—It is generally supposed that the word Airth is derived from the Gaelic *ard* or *ardhé*, signifying a hill; and if this supposition be correct, it furnishes strong grounds for the opinion, that the parish, which for the most part presents a complete level, owes its name to what is well known by the appellation of the Hill of Airth.

Extent, &c.—The extent of the parish, from north to south, may be estimated at fully $6\frac{1}{2}$ miles in length; and in breadth, from east to west, at about $3\frac{1}{2}$ miles; the whole comprehending a surface of 30 square miles. It is bounded on the north by the Forth; on the east, by the same river and the parish of Bothkennar; on the south, by the parishes of Bothkennar and Larbert; and on the west, by the parish of St Ninians. Its figure is somewhat irregular, and may be considered as approximating nearer to a parallelogram than to any other. With the exception of the Hill of Airth, and the rising grounds of Dunmore Park, the parish, as has been already hinted, forms an entire plain. And, although there are no records for enabling us to fix the precise period, yet, from the strata of shells to be found at no great depth throughout the whole of the low grounds, it may be reasonably

inferred that these once formed part of the bed of the river, and that vessels were to be seen spreading their white sails to the wind, where the husbandman now pursues his peaceful occupations. The Hill of Airth is of a circular form, and may be computed in height at about 100 feet above low water-mark at spring tides. On its south-east extremity, stands Airth Castle, the seat of William Graham Stirling, Esq.; nor is it too much to say, that, from every part of it, the admirer of nature may luxuriate on scenes exquisitely picturesque and beautiful. The grounds of Dunmore Park, the seat of the Earl of Dunmore, may be reckoned at about 70 or 75 feet above low water-mark. They are richly wooded; and, together with the mansion-house, present an enchanting prospect to the steam-boat traveller between Newhaven and Alloa. The sea coast, forming the boundary of the parish to the north and east, may be said to extend in length $8\frac{1}{2}$ miles; and though there are in a manner three harbours, Newmiln, Airth, and Dunmore, yet there are none of them sufficiently important to require particular notice.

Hydrography.—There are several springs said to be medicinal; one of which is known by the name of the Lady Well; a name which it is generally supposed to have received in times of Popery, from being used to furnish holy water for the abbacy, which is said to have then existed at Airth, in connection with Holyrood. The only river in the parish is one of no note, called the Pow. It takes its rise in the adjacent parish of St Ninians, and empties itself into the Forth, a little above Kincardine Ferry. It is crossed by several small bridges, one of which is still known by the name of the Abbey Town Bridge.

Geology.—All the rocks in the parish are of the coal formation, and form a part of the great coal-field of Scotland. The line of dip varies. Next to the Forth, it is southerly; but in the south part of the parish, it is towards the north-east, which is the general dip of the surrounding coal-fields. Veins and fissures cut across the strata, and have the effect of dislocating them; throwing the corresponding strata either up or down, according to the angle which the vein makes with the strata. The declination which the line of dip makes with the horizon, is generally about one foot in six. The rocks are sandstones, of various shades of yellow, grey, and approaching to white; some of them of excessive hardness. Some of the beds are several fathoms thick. Argillaceous rock varies in thickness from an inch to two feet. This rock is

generally the bed on which the coals rest, and is suitable for making fire-brick for furnaces. Sand and clay are variously mixed in these beds. Argillaceous ironstone is found in the argillaceous schistus in thin beds or bands of a few inches thick ; also in detached balls. This ironstone yields about 30 per cent. of iron. The greater proportion of the parish is composed of alluvial deposits from the Forth ; the lower part of which is dark-coloured soft clay or sludge, in which are found varieties of sea-shells, corresponding with those which are found at Leith. All the soils lie on rocks of the coal formation. The only mines are those of coal ; but at present, there is no colliery establishment in the parish. There was an extensive one near the village of Dunmore, from which coals were exported, both coastwise and over seas ; but, being nearly exhausted, it was given up in the year 1811. It is said, and there is every reason to believe it to have been the case, that, at a very remote period, coals were wrought at no great distance from Airth Castle ; and it is supposed, that there is still a considerable quantity of coal to be found, both in the south and north-east parts of the parish.

Zoology.—Badgers, not many years ago, were common in Dunmore Wood ; but they have now entirely disappeared. This fact is ascribed to an assault which certain mischievous individuals made upon them one night with dogs, whereby either the whole of them were destroyed, or such dreadful havoc made amongst them, that those which escaped the general carnage consulted their safety by flight. Certain it is, that the badger, once so common, is now never to be seen.

Woods.—Various plantations, consisting of all kinds of hardwood, larch, Scotch fir, birch, &c. have been made, chiefly on the grounds of Airth and Dunmore Park, all of which are in a thriving condition. On the former of these grounds, the castle is surrounded by trees of every description, very majestic, and of very ancient date ; but the willow trees, which are scattered in all directions, deserve to be peculiarly noticed, as surpassing, both in stature and beauty, most of the same species to be found either in Scotland or England. Many more trees of the same sort have been planted by the present active proprietor, chiefly in hedgerows ; by the rapid growth of which, in the course of a few years, the estate has been greatly beautified, and its value will be greatly increased. The trees of Dunmore Park are very numerous and valuable. The oak and beech trees especially are most

magnificent, and, being profusely scattered throughout the park, impart to it an air of singular grandeur and beauty. There is likewise a wood of considerable extent, through which the principal approach to the mansion-house is made, abounding with all kinds of forest trees, many of them of stately dimensions; amongst which, however, the beech and Scotch fir occupy a conspicuous place. Of the latter kind is one, close to the approach, so remarkable as to have attracted the attention of an eminent London artist, who has given it a place in a set of engravings of the most striking trees to be found in Scotland, lately published. On measurement, it was found to contain, excluding all limbs not six inches in the side, 290 cubic feet.

II.—CIVIL HISTORY.

As an historical incident of some importance, it may be mentioned, that, in 1817, when cutting the present line of road which leads from Airth to Stirling, the workmen came on the skeleton of a whale. The skeleton was found to the north of the mansion-house of Dunmore Park, and upwards of a quarter of a mile from the bank of the river. It was traced to the extent of 75 feet.

Land-owners.—The chief land-owners of the parish are, The Earl of Dunmore; William Graham Stirling, Esq. of Airth; Sir A. Maitland Gibson of Kersie; James Bruce, Esq. of Powfoulis; John Burn Murdoch, Esq. of Newck, &c.

Parochial Registers.—There is a register of births, deaths, and marriages from 16th September 1660, to 9th November 1669. From this date there is none till 15th February 1670, when it again commences, and is carried on to 4th September 1720, when there is another blank down to 4th July 1732; from which period, it is continued, with tolerable accuracy, down to the present.

Modern Buildings.—The principal modern buildings in the parish are, an elegant front addition to Airth Castle, the mansion-house of Dunmore Park, beautifully finished, and of Gothic architecture; the houses of Newck and Powfoulis; the church, a very handsome little structure, containing accommodation for 800 sitters; and the manse, seated on a rising ground at a little distance from the village. All of these tend not a little to adorn the scenery on the south banks of the Forth, between Kincardine and Alloa.

III.—POPULATION.

The population of the parish has decreased considerably, within the last thirty years, from two causes, viz. from the common

practice of throwing two or three small farms into one ; but chiefly, from the Dunmore colliery having been given up. There are two villages, Airth and Dunmore. The population of the former is 850 ; and of the latter, 246. Population in the country, 754.

Average of births for the last seven years,	30
deaths,	29
marriages,	12
Number of unmarried men, bachelors, and widowers upwards of 50 years of age,	75
women upwards of 45 years of age,	185
Average number of children in each family,	4

One nobleman is resident in the parish, viz. the Earl of Dunmore, and three or four families of independent fortune. By far the greater proportion of heritors are non-resident. Proprietors of land in the parish, of the yearly average of L.50 and upwards, are thirteen in number.

IV.—INDUSTRY.

Agriculture.—The number of acres, standard imperial measure, in the parish, is 16,400, almost constantly in tillage. Saving the Dunmore parks, extending to about 200 acres, and the lawn surrounding Airth Castle, consisting of 70 acres, there is little or no pasture. There are between 300 and 400 acres of moss, some of it to the depth of 16 feet, covering ground of most excellent quality. Part of the moss is covered with a thriving plantation, whilst by far the greater part of it is in the hands of tenants, or, as they are called, Moss Lairds, who, by dint of hard labour, are gradually removing it. They are paid for the land when cleared at the rate of L. 24 per imperial acre ; whilst the land so cleared, is measured off once every four years, and a rent exacted for it, amounting to about L. 2 per acre. The number of acres under wood in the parish may be estimated at about 160. All kinds of hard-wood are planted, and every attention is paid to thinning, felling, pruning, &c.

Rent of Land.—The average rent of arable land, per imperial acre, is about L.3.

Wages, &c.—Farm-servants receive from L.7 to L.10 in the half year, with board ; women employed in several departments of farm labour, from L.2, 10s. to L.3, with board ; labourers, 10s. per week, summer and winter. A cart thoroughly finished costs L.10, a plough, L.3, 3s. ; a pair of harrows, L.1. Mason's wages per day are 2s. 6d. ; a carpenter's the same ; a smith's, 3s.

Husbandry.—The general character of the husbandry has been very much improved ; and now, it may, without exaggeration, be said to equal that of any other part of Scotland. No less than 150

imperial acres have been added to the Dunmore estate, by land taken from the sea, within the last fifty years; and to the Airth estate no fewer than 185, within little more than the same period. The land is of the very first quality. The embankments by which it is defended from the water, are composed of mud and turf, some of them with stone facings. Draining, particularly wedge-draining, has been carried on to a very great extent, more than one-half of the parish having been so drained, within the last ten years. This, in Carse land, may be considered the very basis of agricultural improvement. The expense is considerable, but the tenant is assisted by the proprietor.

The general duration of leases is nineteen years. Farm-buildings are, upon the whole, indifferent.

Quarries.—There is abundance of sandstone quarries; nothing peculiar in the mode of working them.

Fishery.—No fishery in the parish of any importance. The salmon-fishing, however, such as it is, and which is carried on by means of staff-nets, commences in the month of July, and terminates at the period prescribed by the Act of Parliament. A small rent is exacted by the proprietors, and the produce is either sold to the neighbouring families, or conveyed by the steam-boats, to the Edinburgh market.

Produce.—The average produce of grain of all kinds may be estimated at about 6 bolls per imperial acre. The culture of potatoes, turnips, cabbages, &c. in the fields, is exceedingly limited. The average crop of hay per imperial acre is 200 stone. Produce of gardens and orchards is, in general, very abundant. The thinning of the plantations rarely amounts to more than what is required for paling. Total yearly value of raw produce raised in the parish is about L.100,000.

Weaving is the only species of manufacture carried on, and that to a small extent.

There are only five registered vessels belonging to the parish.

V.—PAROCHIAL ECONOMY.

Market-Town, &c.—Falkirk is the nearest market-town, distant six miles. There are two villages, Airth and Dunmore. The length of the turnpike roads in the parish, is about eight miles. Two public carriages pass through the parish to Glasgow, viz. the Alloa coach daily, and the Kirkcaldy coach, three times a week.

Ecclesiastical State.—The situation of the parish church is central, being about three miles and a half distant from the

northern extremity of the parish, and nearly as much from the southern. It was first opened for public worship on 20th February 1820, and consequently it is in excellent repair. It is built for the accommodation of 800 individuals. The sittings are all free, the tenants being accommodated by their respective landlords, and about 60 sittings set apart for the poor. The manse was finished in 1815. The glebe, including the site of the manse and garden, is upwards of 10 acres in extent. The stipend is 18 chalders of victual, half barley, half meal, payable by the highest fiars of the county; and L.8, 6s. 8d. for communion elements.

There is a Burgher meeting-house in the parish. The minister is paid from the seat rents and collections. Stipend allowed, about L.100.

The number of families attending the Established Church may be estimated at 300; number of individuals, exclusive of children, 1350. Families attending meeting-house about 90; individuals above twelve years of age, 201. Average number of communicants in the Establishment, 400.

There are Societies in the parish for religious purposes, and the amount of their contributions may average L.20 per annum.

Education.—There are the parish school, and two unendowed schools. The salary of the parochial schoolmaster is the maximum; the fees, 3s. for reading per quarter; 3s. 6d. for reading and writing; 4s. for arithmetic; 6s. for Latin; and one guinea for a course of book-keeping. The schoolmaster has an excellent house, neatly built, and containing far more than the legal accommodation. The general expense of education may be stated to be from 10s. to 20s. per annum. There are few or none above fifteen years of age who cannot both read and write. The people in general feel the benefits of education. The parish school is conveniently situated for all.

Library.—There is a circulating library.

Societies.—Two friendly Societies have been established—the one, denominated the Weaver's Society, having been in existence upwards of fifty years, and chiefly designed to defray the expenses incurred, when a death takes place in any family connected with it; and the other, the Dead-fund Society, established for a similar purpose.

Savings' Bank.—A Savings' Bank for the parish and vicinity was established in 1821. The sums invested yearly have amounted to L. 100 or L. 150; and the sums withdrawn, to about L. 50.

Poor and Parochial Funds.—There are upwards of 30 persons who receive parochial aid, at the rate of about 1s. per week, and upwards of 40 who receive it occasionally. The annual amount of collections made for their relief at the church door, including an extraordinary collection made on the first Sabbath of the year, may amount to about L. 40; and to this sum is added, for the same purpose, the interest of L. 360, bequeathed by different individuals. There is, besides, an annual assessment laid upon the heritors, amounting to upwards of L. 50. Out of these funds, however, are paid precentor's salary, beadle's salary, salary of synod-clerk, presbytery-clerk, presbytery-officer, and session-clerk. It rarely happens that any indisposition to receive parochial aid is manifested.

Fairs.—There is an annual fair on the last Tuesday of July, chiefly for the purpose of hiring shearers.

Alehouses.—There are 10 or 11 alehouses in the parish, and there is every reason to suppose that they tend to injure the morals of the people.

Fuel.—Abundance of coal is obtained at a few miles distance, which sells at 7s. 4d. and 9s. 4d. per ton.

MISCELLANEOUS OBSERVATIONS.

The most striking variations betwixt the present state of the parish, and that which existed at the time of the last Statistical Account, are,—the decrease of the population, which was then reckoned at 2350, and now at 1850; the number of buildings which have been completed; the immense improvements which have been made in agriculture; and the improvements, scarcely inferior, which have been made on the state of the roads. The system of husbandry vies, in point of excellence, with what is carried on in any district of Scotland, so that, in this respect, the parish may be considered as not susceptible of improvement.

Revised April 1841.

PARISH OF BALFRON.

PRESBYTERY OF DUMBARTON, SYNOD OF GLASGOW AND AYR.

THE REV. ALEXANDER NIVEN, MINISTER.

L—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name of this parish may, from its etymology, mean the *Town on the Burns*, or the *Town of Mourning*. In the former case, the name is descriptive of its locality;—the original *clachan* or town being situate at the confluence of two inconsiderable streams. In the latter case, the parish may be supposed to take its name from an event of rather an interesting character, and which forms a part of its traditionary history. On one occasion, it is said, when the aborigines had gone to a little distance to attend on their religious rites, they left their children in their tents. On their return, they discovered, to their horror, that they had been all destroyed by the wolves which infested this part of the country, in common with other districts in Scotland at this period; and hence, ever after, the place was called the town of “*weeping or mourning*.” Which of the two derivations is the more correct one, we leave to the curious to determine;—*non nostrum est tantas componere lites*.

Extent, Boundaries, &c.—The parish runs very nearly east and west; is about 11 miles in length; and 3 in breadth; bounded on the east and south-east, by Gargunnoch and Fintray; on the south and north-west, by Killearn and Drymen; and on the north and north-east, by Drymen and Kippen. The clachan, once the chief point in the parish, is about fifteen miles due west of Stirling, the county town, though by the circuitous road it is considerably farther distant. It is almost equally distant from Dumbarton, the seat of the presbytery, and Glasgow, the access to which towns is by well-made and well-kept roads, though the original lines are far from being those which engineers of the present school would adopt. The clachan, at one time, was, as has been already said, the chief, if not the only point of attraction. It still deserves pre-

eminence; for here, the parish church still stands, surrounded by the burial-yard, always an object of deep interest to the population. Here, also, is the *smithy*,—and the old oak tree, of fourteen feet in circumference, in the very heart of the clachan, in which were fixed the *jougs* of the parish. But, alas! the glory of the clachan has past away. It is now shorn of its importance by its immediate neighbour, the new village of Balfron, which sprung into existence with the introduction of manufactures, about sixty years ago. This is now the principal village in the western district of Stirlingshire, is built on a gentle declivity, with a southern exposure, sloping gradually to the river Endrick. The situation is commanding, and extremely beautiful. In the immediate foreground, you have the rich valley of the Endrick, with the river meandering through the well-grown and richly diversified plantations of Ballikinrain and others; bounded by a well-defined ridge of hills, known by the name of the Lennox Fells, and which here rise to an elevation of 1500 feet above the level of the sea. In the greater distance are the Grampians bounding the view; amongst which, Benledi, Benvoirlich, Benvenue, Benmore, and Benlomond, with the more distant mountains of Cowal, in Argyleshire, form grand and conspicuous objects. The village is neatly built, and being kept clean and white, is at all times an object of interest to the traveller or visitor.

Hydrography.—Our only river is the water of Endrick, which rises in the parish of St Ninians, and after fertilizing and beautifying the parishes of Fintray, Balfron, Killearn, Drymen, and Kilmaronock, at length is lost in the waters of Lochlomond, the Queen of British lakes. It is a clear running and beautifully winding stream, and, though well-wooded on its margin in general, there is nothing to prevent the angler from following his sport; and richly is he rewarded by full creels of those deliciously flavoured trout in which it abounds.

Geology.—Abundance of limestone there is in the parish, but from want of coal it has never been turned to any profitable account. It is said, however, that coal formations do exist in the parish, and, perhaps, the appearance of newest floetz-trap and basalt may render the statement not improbable; but certain it is, that any experiments upon what have been supposed to be the likeliest situation for coal deposits, have proved hitherto unsuccessful.

II.—CIVIL HISTORY.

Balfron originally belonged to the once powerful family of Drum-
STIRLING.

mond, who, along with it, held in their own right the lands of the barony of Drummond proper, known now by the name of Drymen. They also were the proprietors of Roseneath, Auchendown, and Cardross in Monteith. Balfron was given to the youngest brother of the chief "Malcolm Big." How or when it passed from their hands, we have not been able to discover. The lands of the parish are now parcelled out amongst many proprietors or heritors, all of whom are, with one or two exceptions, unfortunately for the best interests of the parish, non-resident.

Historical Notices.—In connection with this parish there are, doubtless, many occurrences worthy of being noticed here. For brevity, however, we select only the two following; the first affords the last instance that we are aware of, of *abduction* being punished capitally in Scotland; and the second is a tradition in opposition to what is generally supposed to have been the case by the historians of the time. *First*, it was from Edinbelly, in this parish, that Rob Roy, Junior, abducted Jean Kay or Wright; and for which he suffered the last penalty of the law at Edinburgh. Jean Kay, whom Rob abducted, was the heiress of Edinbelly, and, though not quite fifteen years of age, was the widow of Mr Wright of Wright's Park. She is described as being interesting enough in her appearance, and rather of a comely countenance. One evening, a very few weeks after Mr Wright's death, Rob, with a party of fifteen Highlanders, landed unexpectedly at Edinbelly, and carried the young widow off to his retreat in the Highlands. In process of time he was pursued, taken, convicted, and executed for the crime. *Second*, it was at Clockburn, in this parish, according to a very common tradition, that the assassins of Archbishop Sharp first drew bridle, after the murder of that prelate in Magus Moor, in Fifeshire, on 3d May 1679. The distance travelled could not have been less than seventy or eighty miles. A solitary tree now marks the spot where, at the time referred to, the house and offices of a small farm stood, and which afforded the accommodation which men and horses required. Without pretending to say how much credit should be attached to this tradition, we may be allowed to state, that there is some presumption of its truth, from the fact, that one of the conspirators, Balfour of Burly, died at Roseneath, under the protection of his kinsman Argyle; and that the spot where the halt was made in this parish is in the direct route, or what may have been supposed to have been so, from Magus Moor to that place.

Eminent Men.—The first to be noticed is Alexander, fifth Earl of Glencairn. “There is hardly,” says Chambers, “any patriotic name in Scottish history entitled to more of the credit of a firm and zealous pursuit of liberty, than Alexander, fifth Earl of Glencairn.” The friend, the associate, and the protector of Knox, he has well earned this character. In all the struggles by which Scotland was distinguished for civil and for religious liberty, from 1554 till 1574, when Glencairn died, he took an active and prominent part, and of this every reader of Scottish history is aware.

The next distinguished person connected with this parish, is the Inventor of Logarithms, Napier of Edinbelly and of Merchiston; to whom, in the opinion of Hume the historian, the title of a great man is more justly due than to any other which his country ever produced. He was born in the year 1550, and in the year 1617 he died, at Merchiston Castle, in the neighbourhood of Edinburgh. Of this latter fact there is, we believe, little doubt; but as to the place of his birth, this is involved in some obscurity, there being little else to guide us on this point than the tradition of the country; and upon this Balfron, in common with some other parishes, lays claim to having been the birth-place of this great man. It is quite certain that Edinbelly, in this parish, did belong to the Napiers, for many years; that the same family became the proprietors of Culcreuch; and that Sir William Napier of Milliken, as the representative of the Napiers of Culcreuch, was, in Edinburgh, in 1818, served heir and lineal representative of John Napier, the Inventor of the Logarithms. Thus the two families are identified, namely, the Culcreuch Napiers, and the Edinbelly Napiers. Now, we believe that John Napier was born in Edinbelly, and not at Drumbeg, as is occasionally alleged; because, though the Napiers had property in Drymen parish, still there was no house on the property which could be supposed a mansion suitable to the consequence of the family. Drumbeg, the spot which local tradition assigns, is mentioned by authors as “*an obscure spot.*” In point of fact, it is a very common thatched farmhouse, whereas the remains of the mansion-house of Edinbelly, in Balfron parish, are still in existence; and the arms of the family are yet to be seen on the wall of what was part of the original house. This of itself is a circumstance which marks the character of the mansion, and assigns the *status* of the owner. But there is another circumstance in connection with this matter, that ought not to be forgotten. In the year 1593, we find Napier

publishing his *Exposition on the Revelations*; and in his preface addressed to the King, he shows very strongly his adherence to the strict Presbyterian principles of the time, his preference to which may be traced very naturally to his intimacy with the fifth Earl of Glencairn, whose seat, Ballindalloch, was within a mile and a-half of Edinbelly, the residence of his boyhood, if not his birth-place. Otherwise, it is difficult to account for Napier's predilection for these principles, seeing that the bias of his mind might naturally have been to the other side, when it is remembered that his father was Master of the Mint, to one who had no great partiality to the Presbyterian party. When it is stated besides, that, upon the Edinbelly property, not many years ago, there was a monument standing, raised to the memory of this great man in accordance with the tradition, which assigned this property as his birth-place, we are inclined to believe that, though at Gartness and Drumbeg he may have resided, yet at Edinbelly the Inventor of the Logarithms first saw the light. Edinbelly, the place in question, is, at present, the property of the much respected and deservedly esteemed Robert Dunmore Napier, Esq. of Ballinkirrain.

Parochial Registers.—The first date of the parochial register is 1691, when the first proclamation of banns in order to marriage is inserted. The first registration of baptisms is in 1687. From that time till the present, the register of baptisms has been very irregularly kept. From the year 1825 downwards, to the present year, with a few exceptions, the records of session have been regular y kept.

Manufactures.—Previous to the year 1780, this parish was, strictly speaking, rural. Agricultural pursuits occupied the population, if a population could be really said to be occupied, who were of necessity compelled, from the low state of agricultural pursuits, to pass fully the half of their time in idleness. But in the year 1790 a very material change took place in the parish, by the establishment of an agency for manufacturing calicoes, under the influence and patronage of a very enterprising and intelligent man,—the late Mr Dunmore of Ballindalloch and Ballinkirrain, in whom were united the activity of the country gentleman and the liberality of the merchant; and to whom this part of the country is indebted for many valuable improvements, of which certainly not the least are its high-roads. The calico establishment, however, did not turn out very satisfactorily; Mr Dunmore, therefore,

formed a connection with the Buchanans of Carstone in Killearn parish, who had just then built the Deanston Cotton Works, near Doune, in Perthshire; and with these gentlemen, in the year 1789, he built the cotton-mill in this parish, known in trade by the Ballindalloch Cotton Works. Mr Archibald Buchanan, the younger of the two enterprising and ingenious brothers, the partners of Mr Dunmore, had been taught the practical parts of cotton-spinning at Cromford in Derby, under the well known Arkwright, the original inventor of cotton-spinning by means of machinery. In the year 1789, cotton-spinning was, under this company, introduced into this parish, and from that time, down to the year 1793, was successfully carried on by them. But in the year 1783, Messrs James and Archibald Buchanan transferred the property to Messrs James Finlay and Company, merchants, Glasgow, who still continue to be proprietors, and who, at their several works at Deanston, Catrine, and Balfron, give constant employment to 2500 hands. The works at Balfron are driven by a stream from the Endrick, which, in dry seasons, is kept nearly uniform by water from a reservoir of 33 Scotch acres, constructed about thirty years ago, in Dundaff Moor, one of the oldest estates of the Montrose family, and contiguous to the ruins of the castle of Sir John De Graham, the friend of Wallace. This stream falls on a water-wheel of almost 30 horse power, which drives 12,000 mule spindles with their preparations. Two hundred and fifty-eight hands or thereby, and these chiefly females, are now employed at the works. It is understood to be the first cotton work in Scotland at least, in which female spinners were exclusively employed.

Wages.—The company pay weekly, and generally on a Thursday, the wages due to their workers. These vary for spinners, from 10s. to 13s. per week; and for piecers from 2s. to 4s. according to the work done. These wages are apparently low, and are certainly much lower than are paid for the same quantity of work done in Glasgow, where a spinner is paid from 28s. to 30s. per week. Perhaps the difference is not easily accounted for. Provisions of all sorts are much the same here as in town; dress much the same. The hours for working are just as long. The only thing which certainly is lower, is house rent; but we are far from being sure that this will make up for the difference in wages. Originally, there were employed at this mill, 400 persons, young and old. The difference in point of numbers can be readily accounted for, by the improvements introduced into machinery. For ex-

ample, in 1792, there were in what is termed a "*pass*," four men, each having two piecers, that is to say, twelve persons in all. Now, one woman spins in one pass with the assistance of three piecers, that is four persons in all what the twelve originally did. In point of numbers, the reduction will be still greater, if the self-acting *jennies* are as successful as they promise in the meantime to be. One woman by herself, with one of these, is able to spin as much as four with the *jennies* in common use; and for this invention is the cotton trade indebted, if we are not misinformed, to James Smith, Esq. of Deanston, so well known as the ingenious author of many important discoveries in various branches of science. It ought to be stated, that the workers here are in general healthy; they are clean and "tidy" in their appearance, which, may no doubt, contribute to this. In point of morality, the mill population may bear comparison with any of the same rank in any of the parishes adjoining; and to several of the mill girls, is the writer of this indebted for kind and efficient assistance in teaching a Sabbath school.

In the year 1792, Messrs John Monteith and Company, of Glasgow, established and carried on for several years an extensive printing-work; but it was found to be too distant from coal to be conducted with advantage. It was therefore abandoned. The site and property were purchased by the proprietors of the cotton works, Messrs James Finlay and Company, and have not been again turned by them to any manufacturing purpose. The great proportion of our village population are occupied with, and dependent upon, hand-loom weaving; there being in Balfron village between 300 and 400 looms. The character of the work done here is what is known by light jaconets and lawns, in numbers varying from 900 to 1600, and harnesses, by which are meant fancy dresses and shawl patterns of all sorts. Our hand-loom weavers are, like the others throughout the kingdom, a sadly depressed class of artisans. There may be no doubt amongst them, here as elsewhere, the idle and the worthless; but, taking them as a body, they are an industrious hard-working class. They toil at what is termed *long hours*, and long enough these are, being from 6 A. M., or even earlier, to 8 P. M., and even later; and yet they are only able to earn a miserable pittance; the average of their wages, after deducting expense of carriage, light, shop rent, and agency, not being 6s. per week. What becomes of the family in times of sickness? and to what a state of misery it may frequently be reduced, may be conceived

As to the poor hand-loom weaver giving an education to his children, even in the most common way, the thing is impossible,—thankful is he, if he can provide their daily food and give them clothing. Why, it is asked, do parents bring up their children to such misery, by encouraging them to follow a trade which is so very much overdone, and which entails upon them a certain unavoidable suffering? The answer is obvious. The very effect of this misery now operates as a cause, under which the unhappy parent is compelled to have recourse to the dire expedient of getting assistance from his child. No sooner are its hands ready for the shuttle, it matters not what may be the sex,—the poor child is placed upon the loom, there to “eik” out, by its 1s. 6d. or 2s. per week, the pittance of the half-starved parent. He would prefer, no doubt, to send his child to the school, there to learn those acquirements which may adapt both body and mind to after toil. But the temptation is too much to be withstood. He grasps at the little help which the child can give; and even with a heavy heart puts him to the trade which he teaches himself. No apprentice fee is required; and all that is made, however little, goes to the assistance of the family. Any one who attends to these circumstances will be at no loss to see how, from year to year, and from generation to generation, misery is handed down and perpetuated.

Nor can any one who knows the circumstances of the weavers, be astonished that there should be discontent at times among them. Our wonder is, that there is so little, more especially when they have so little opportunity for moral and religious training. It is no easy matter, we are aware, to say what the Legislature should do. But, the subject is well worthy the attention of philanthropists; and, in the name of thousands of our suffering countrymen, we cannot help wishing, that some remedy were speedily introduced to alleviate sufferings and privations, which, we are satisfied, have no parallel in our Christian land.

III.—POPULATION.

The number of the present population of the whole parish is 2057; and there has been no increase for several years. Of these about 1700 are in the village. The number of proprietors having land of the yearly value of L.50 and upwards is 16. Scarcely any of these can be properly said to be resident in the parish, and of all the evils which can be inflicted upon a parish, none can be more ruinous than a non-residing proprietary.

Land-owners.—The names of the present proprietors are,

Mr Spiers of Elderslie; Mr Campbell of Boquhan; Mr Kay of Wright's Park; Mr Spiers, present proprietor of Culcreuch; Mr Galbraith of Balgair; Mr Napier of Ballikérain; Commissary-General Dunmore of Kilfasset; Mr James Campbell, merchant, Glasgow; Mr Samuel Cooper of Smithston and Ballindalloch; Mr Patrick Neilson of Camoquhill, merchant, Glasgow; Mr Alexander Neilson, part of Camoquhill, writer, Port-Glasgow; Mr Pollock of Camoquhill; Rev. Dr Graham of Balfarning and Indians; Dr Blair of Ibut; and the Trustees of the late James Morrison, with other smaller portioners.

Habits, &c.—It must be confessed that killing game without a license is very prevalent. The general habits of the population may be stated to be cleanly. It is quite impossible to view a weaving population, such as ours, notwithstanding all their disadvantages, and not be struck with their intelligence. The knowledge which they exhibit, and their acquaintance with certain subjects, is indeed astonishing.

IV.—INDUSTRY.

Agriculture.—There are in the parish above 14,080 acres; of these 3320 are in a state of culture; 105 are planted; the rest is in pasture or in waste. 500 acres might very easily, and with a proper application of capital, be added to the cultivated land, the average rent of which is about L.1 per acre; and great additions might likewise be made to the plantations within the parish, and which, if judiciously done, would certainly improve both the climate and the shelter.

Leases.—With the exception of two estates, namely, Balgair and a part of Gartmore, which are managed by judicial factors, who reside in Edinburgh, the leases generally run for nineteen years. On these two estates, the leases are only five or seven years. This certainly cannot be to the advantage either of tenant or landlord.

The farms in the parish are generally small,—the rents of one or two being L.150 per annum; but in general, they run from L.80 to L.100. The farmers are as industrious as need be; but, from the general size of the farms, and, above all, from the want of residing proprietors, it must be regretted that there is not that encouragement given to men of capital, skill, and enterprise, which we notice in other districts of the country.

Rent.—The rent for grazing a milk cow varies from L.2 to L.5, according to the pasture.

Wages.—The rate of wages is from L.6 to L.12 and L.14 per annum, according to age and other circumstances, the farm-servants having, besides, the common allowance of milk and meal, if not resident in the house. Good dairy-maids have L.5 in the half-year. A day-labourer's wages is 1s. 6d. a day in summer, less in winter; a mason and carpenter's are 2s. 6d. per day.

Live-Stock.—The breed of sheep and cattle has been greatly improved, particularly the latter, under the patronage of the Strath-Endrick Agricultural Club, one of the oldest, and one of the best district Associations with which we happen to be acquainted, formed originally at the suggestion of His Grace the late Duke of Montrose, who, as long as he lived, from the date of its formation, took an active interest in its success. It is still warmly patronized by the present Duke, and its members are landlords and tenants connected with the western district of Stirlingshire and Dumbarton; by whose liberal subscriptions, premiums to a very great amount are annually distributed. Under their influence, stock of all kinds, more particularly the dairy stock, is wonderfully improved. For the dairy, the Ayrshire breed of cattle is generally preferred. In this class, many of the farmers in this district have been enabled successfully to compete with the most distinguished breeders of the south.

V.—PAROCHIAL ECONOMY.

In our village there is every convenience which bankers, bakers, butchers, grocers, and haberdashers can supply, with a proportional number of tailors, shoemakers, blacksmiths, and carpenters; most of the shops are lighted with gas, an abundant supply of which there is from the cotton-works. Our chief intercourse is with Glasgow; and daily is the communication by carriers, and by a light and comfortable four-horse coach. The post arrives and departs also every day. The length of the turnpike roads within the parish does not exceed four miles.

Ecclesiastical State.—In 1832, it was found necessary to rebuild the parish church. In 1833, it was opened for public worship, and is seated for 700. None of the seats are let. It is commodious enough, and is in all respects built according to the intention of the resolution, "that no ornamental work be permitted, and that every possible expense, consistent with the security of the sitters, should be avoided." The expense of building and finishing this fabric, including plans and specifications, was, in all, L.930. The Earl of Kinnoul is patron of the living, as proprietor of an

old abbey in Perthshire. Connected with the establishment, there is a female Society for the advancement of religious purposes, which was founded in the year 1834. In order to enable the children to attend the Sabbath school under the superintendence of this society, and the house of God, many of the children, indeed the greater part of them, receive clothing from this Society, who at the same time very liberally meet in this respect the wants of the aged and destitute. In connection with the Society, there is a library of above 150 volumes, which have been in extensive circulation, and which, under the divine blessing, we trust, have proved beneficial to many in the parish. For the encouragement of all who may be engaged in Sabbath school teaching, or who may take an interest in their working, it will be gratifying to be told, that the effects of Sabbath school teaching in Balfron have been delightfully apparent; and that these teachers, both male and female, are either weavers or cotton-spinners. They are of the same rank with those children amongst whom they labour so cheerfully and so effectively; and have been bred up to teaching by their attendance upon a week-day class for religious instruction, taught by the present minister of the parish, and which has been in operation from 1826, and from which many delightful young people have, from time to time, gone forth.

The parish church is situated very nearly at one extremity of the parish, convenient enough for the great bulk of the population residing in the village, but too far removed from the eastern part to allow the population of that quarter the full benefit of public ordinances. In some degree to make up for this, the minister of the parish preaches once every six weeks in summer at the school-house of Lernock, about five miles to the east of the present parish church. In winter, he does this once a quarter. He goes to this place in summer, after having had regular service in the church. In winter, he is reluctantly obliged to leave his church vacant. Public worship is well attended in the summer half year. In the cold months of winter, neither weavers nor cotton-spinners are able to stand the cold of the church; and hence, during these months, the attendance is not so numerous.

The number of communicants in connection with the Establishment, is upwards of 400, and they are gradually increasing. The manse was built about forty years ago, at a cost of something under L.300; originally a poorly built and ill-finished house. The heritors have in consequence been frequently called upon to repair

it at considerable expense. There are 17 acres of glebe, and the living is one of the small ones, a considerable portion of the stipend being made up from the Exchequer.

There are in the parish three dissenting places of worship, namely, Relief, United Secession, and Burgher. The latter have had no fixed minister for many years. The congregations of the former pay their ministers' stipends, which are said to be about L.80 per annum.

Education.—We have in the parish in all four schools; *first*, the parish school, the master of which has the minimum salary, and, we fear, the fees or wages are ill paid even by the few who are attending; *second*, a school, the master of which receives L. 10 per annum, as a subscription from the heritors. It is for the convenience of the eastern part of the parish. There is a school-room and master's house, both built by subscription. The *third* is a school in the village of Balfron, the master of which is entirely dependent upon the school wages, paying a rent for the school-room; and the *fourth* is a school belonging to, and in connection with, the cotton-works. The master of this receives a salary and accommodation from the mill company. Ostensibly, at least, in all these schools, the usual branches are taught. The people, in general, are perfectly alive to the benefits of education, and all are anxious that their children be taught; but, with every anxiety, the parents, in too many cases, cannot indulge it, from being unable, in the first place, to pay the usual school wages, which are from 2s. 6d. to 3s. 6d. per quarter, and provide clothes, in which their children might appear decently and comfortably; in the second place, as before observed, from being obliged to send their children to be draw-boys or mill-boys, or even weavers, at an age when they should be more properly employed at school. Often have we thought that, if anywhere infant tuition were of advantage, it might be introduced with the greatest possible benefit to this population. We have done our utmost to call the attention of those who might be supposed to be interested in the young of this place, to this highly important subject,—but hitherto, we lament to say, without effect.

Literature.—There is a library in the parish, belonging to the subscribers; the collection, of nearly 400 volumes, is chiefly made up of novels, biography, and a few travels.

Poor and Parochial Funds.—Previous to the year 1832, the poor and parochial funds were managed by the kirk-session. The

heritors met twice a-year with the session to docquet accounts, and to receive their report of the state of the poor ; but the whole of the active management devolved upon the session. Nor did they discharge their duties in a perfunctory manner. Besides exercising a minute and daily care over all the paupers on the roll, on the first Monday of every month, the minister and kirk-session met, when all the paupers who could attend were expected to make their appearance, and personally to receive their monthly allowance. Those who could not appear from ill health, were waited upon by some member of the session, and their condition reported. Thus was the case of every individual brought monthly under the view of the whole session. Sometimes, there was in consequence an increase ; sometimes, there was a diminution of their allowance, according to circumstances. The effects of this system of watchfulness were abundantly apparent. None were admitted on the roll, who were not proper objects of charity. None were continued upon it, who did not require relief. No case was overlooked. The poor were well attended to and contented, and the funds by which they were supported, exclusive of the church collections, amounted to a mere trifle. In looking over the books, and taking the four years immediately previous to 1832, we find that there were expended L.227, 5s. 6d. for the maintenance of the poor during that time, and at this period there were upon the roll two fatuous persons, and two fatherless children. In the course of these four years, as appears by the books, the collections amounted to L.119, 0s. 8d. The remainder of the L.227, 5s. 6d., namely, L.108, 4s. 10d. was made up by what is termed voluntary assessment. In other words, it was a subscription among the whole landward heritors of the parish, and was paid according to their respective valuations. This sum of L.108, 4s. 10d., be it remembered, was for the maintenance of the poor for four years. The annual average was L.27, 1s. 2½d., or about 3d. and a fraction on L.2099 Scots, the nominal valuation of the parish, or about 1½d. Sterling and a fraction upon L.4925, the real rental of the parish, being very little more than one-half per cent. thereon. This sum of one-half per cent., then, with the collections at the church, kept the poor of the parish. No assistance was given to this fund by any of the Dissenting congregations, though frequently applied to, and though the poor connected with the Dissenters were admitted to equal privileges with those of the Establishment. The kirk-session of the parish made no distinction.

Strange to say, however, there were those who looked upon the small sum which they were called upon to pay in aid of the collections, as a grievance. Murmurings were first heard, and they were unheeded. Complaints of the expense of the poor were patiently listened to by the session. At last, however, one heritor actually refused to give his quota, till compelled by law, and this was intimated to the session only when they had, as usual, met to pay the monthly allowances. The paupers were assembled; the session had no funds to meet their demands, and they had no alternative but to resign their charge into the hands of the heritors. They intimated to them accordingly, in the most respectful way possible, their resolution to do so, expressing, at the same time, their great reluctance and regret at being compelled, from circumstances, to take the step.

The heritors accepted the resignation of the kirk-session, and the result is what any one might have anticipated. From 1832, when the kirk-session resigned their charge, up to the present time, the expenses relative to the poor have been gradually going on increasing. There are forty on the roll, and L.200 per annum does not now defray all charges. This sum is at present raised by an assessment on the whole inhabitants,—one-half being upon the heritors according to their real rental, and the other half upon householders and other inhabitants, according to their supposed means and substance. Every individual within the parish, whose earnings are supposed to amount to 10s. per week, is now taxed for the support of the poor. The springs of charity are dried up, in consequence—the collections at the church door, are, we may say, almost nothing, say 1s. per day,—there is a general displeasure among the inhabitants; and there is a feeling among the poor and destitute, that they are neglected, and, perhaps, with too much justice. In short, all the evil effects of a compulsory assessment are experienced, and in this parish we have another proof, if that was needful, of the truth of a remark, which cannot be too frequently repeated, “that, of all the public funds in Europe, none is managed with so little expense to the fund itself, none so frugally, none so impartially, and none is laid out more to the purpose for which they were raised, than the poor’s funds under the care of the kirk-sessions of Scotland. And never, perhaps, will Scotland find a more proper jury to determine the objects of public charity, nor the quantum necessary for the supply.”

MISCELLANEOUS OBSERVATIONS.

In 1755, the population of the parish seems to have been 755 souls. In 1792, 1381 souls; of this number there was in the village 981. In 1793, the population was 1581; of those in the village there were 1181. By the returns of 1831, the population seems to have been in the whole parish, 2057; of these there were in the village, about 1700. By census of 1841, the population is 1968. Since the publication of the last Statistical Account, 1793, our roads have been certainly improved, though much in this way remains to be done. Since then, too, our means of intercourse with other towns, particularly with Glasgow, have increased. In those days, there was no post; the nearest office was Glasgow. There were no regular carriers for the conveyance of goods. When the first caravan for the conveyance of goods and passengers, many years after this, was established on the road, it constituted quite an era in the history of the village. Now, the post arrives and departs daily, and we have our London letters on the third day. Now, we have daily carriers for goods, and a neat light daily coach in summer for the accommodation of travellers. And now, too, for the accommodation of all, there is a branch of the British Linen Company's Bank amongst us, under the active agency of the Messrs Robertson. All these are, no doubt, changes to the better; but, with all these, we cannot say that the village is in a state of thriving prosperity, but the reverse. The Endrick does not, at all seasons, even with the reservoir in Dundaff, afford constant and steady supply of water for the mill; and as we have at present to drive all our coals from Kirkintulloch, a distance of seventeen or eighteen miles, steam power is out of the question. The situation with all its beauty, therefore, is ill adapted for a manufacturing village. The population has increased since 1792, but not so, we fear, in comfort nor in happiness, in an equal ratio. On the contrary, there is in it very much misery arising from poverty and destitution; and if some new impetus be not given, by some means or other, in a few more years,

“Far away, our children will have left the land.”

June 1841.

PARISH OF ST NINIANS.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. C. GREIG, A. M., MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—St Ninians is the name by which the parish has long been known, though it is difficult to say when, or for what reason, it was first given. The labours of Ninian in the close of the fourth and beginning of the fifth century, were chiefly confined to Galloway, of which Keith styles him the first Bishop. There is no evidence that he ever was in this part of the country—far less that he introduced Christianity into it;—nay, if we may believe Tertullian, before the close of the second century, the preachers of the Gospel had not only gone beyond the wall of Antonine, but beyond the utmost extent to which the Roman arms had ever reached. The original name of the parish was Egglis, Eggluis, or Eccles, *the Church*,—nor was it till the simple forms of Culdee worship were overwhelmed by the superstitions of Rome, that either churches or parishes were sainted. So late as the twelfth century, it retained its original name. In 1147, David I. founded the Abbey of Cambuskenneth, and gave to it certain lands in this parish; and during his reign, Robert, Bishop of St Andrews, granted to the same Abbey, “the Church of Egglis, St Ninians, with its Chapels of Dunipace and Lithbert, and all its other chapels and oratories, and all other pertinents.” During the occupation of the Romans, Stirling was considered merely as a watch-tower or station; and if St Ninians was, perhaps, for a time the only church in the district between the Forth and Carron, it might, even after others had sprung up around it, still retain the name of the Church. In 1459, another Ninian became Bishop of Galloway, and in this century the deanery of the Chapel Royal at Stirling was annexed to that bishoprick; the Dean was invested with Episcopal jurisdiction, and the bishop was designated, “Candidæ Casæ et Capellæ Regiæ Strivelingensis Episcopus.” But though this brings one of the name near to us, it cannot be ascertained after

which of the two the parish was named, or when and by whom the change of name was effected. One thing is certain, that, long after the parish was called St Ninians, the village in the parish register is styled Kirktown; and it is only since 1724 that this name was entirely dropped.

Boundaries and Extent.—St Ninians, it is said, once comprehended the whole district between the Forth and Carron. With the exception of the small space occupied by the parish of Stirling, the Forth is still its northern boundary for many miles; by which, it is separated from the parishes of Kincardine, Lecropt, Logie, and Alloa. On the east, it is bounded by Airth; on the west, by Gargunnoch and Fintry. The Carron on the south, for nearly six miles, separates it from Kilsyth and Denny, the parishes of Dunipace and Larbert forming the remainder of its southern boundary.

From the Church to Randieford, on the west, is a distance of more than eleven miles; to Powbridge, on the east, about seven, though in a direct line, the distance between these extreme points may not be above 15 or 16 miles. The greatest breadth is 7 miles; but, owing to the windings of the Forth and other causes, it is very irregular, and at both extremities is not more than three miles. A parallelogram of ten miles by six is more than the parish would fill up. Eleven miles by five is nearer the truth; fifty-five square miles—certainly, not under this, and probably very little above it.

Topographical Appearances.—There are three distinct regions, as to climate, soil, and appearance, into which the parish is naturally divided—the moorlands, dryfield, and carse.

The moorlands form the eastern extremity of that range of hills, which runs across nearly the whole of the narrow isthmus which separates the Clyde from the Forth. Some of these rise to a considerable height, and have particular names given to them; but, as a whole, they are denominated the Lennox hills. In this parish, we have the Dundaff hills and the Earl's hills. The highest does not rise more than 1000 feet above the level of the sea. On the north, there is a large track covered with heath; but, as you descend to the south, the pasture is much improved, and along the banks of the Carron, there is a narrow strip of well-cultivated land. The moorlands contain more than one-third of the whole parish.

Descending from the moorlands to the dryfield, you meet with a bold range of basaltic columns, stretching from the south-west to the north-east; and by means of the King's Park, the Castle of Stirling, and the Abbey craig, appearing to form a connection

between the Lennox and the Ochil hills. These are very irregular in height, rising at some places to more than 100 feet; and as some of them are bare, and some planted to the very brink, they have a very picturesque appearance. This is increased by the deep gorges, or intervening spaces through which the water appears to have forced its way; their eastern slopes having much the appearance of being left in their present state by the subsidence of that element. The dryfield in general slopes to the north and east, though it is so variegated, that it is difficult to bring it under any general description. There are in it several level tracks of considerable extent, but it is mostly undulating; and these undulations occasionally terminate in steep banks, or swell up into rounded tops. Nearly the whole is well cultivated, enclosed, and beautified with hedgerows and plantations.

The boundary which separates the dryfield from the carse is still more marked than that which divides the former from the moorlands. It has much the appearance of the bank of a river or estuary, concurring with many other facts to prove that the carses were once under water. As many trunks and roots of trees have been, and still are to be found in them, they must afterwards have been covered with wood. The marks of the axe show that the trees were not overturned by tempests, nor were they cut down for fuel, else they would not have been left on the ground. The Romans complain that the natives concealed themselves in the woods, and issuing thence, often unexpectedly assailed their wall and forts. It may, therefore, be reasonably concluded that the forests were cut down by them; that the country being laid bare as far as the Forth, they might be relieved from the sudden incursions of their troublesome neighbours.* The trees thus left on the damp ground would gradually form the morass in which the whole carses, from Falkirk to Stirling, are said to have been, when Edward invaded Scotland. A few patches of moss still remain in this parish, but, in general, the carses are in a state of high culture, and produce abundant crops. In some places banks are raised against the overflowing of the Forth, and throughout their whole extent the land seldom rises more than from twelve to twenty feet above the level of the sea.

The heaviest rains and strongest winds are from the south-west,

* The woods are supposed to have been cut down at the beginning of the third century, after the return of Severus from his expedition to the north, in which it is said he lost 50 000 of his men.

and of these our high grounds have an abundant share ; but from their position, as forming the eastern extremity of the range of the Lennox hills, they are equally exposed to the winds and rains from the east ; and it is believed that there are few places in Scotland, in which more rain falls than in the moorlands of this parish.

Climate.—In general, the inhabitants of the parish are healthy, and many of them live to a great age. Within these few years, one person died in the 101st year of his age. Several deaths have taken place between 95 and 100 ; and we have still a few persons above 90, and a goodly number upwards of 80. In former times, agues were common in the carses, and rheumatism is still prevalent, particularly in the moorlands. Marshes and stagnant water having been completely removed by thorough draining, agues are now not known in the carses ; but no such remedy for rheumatism has been found. There is frequently very considerable mortality among children from measles, scarlet-fever, and other diseases peculiar to childhood. Though almost every variety of disease peculiar to this country is to be found in the parish, yet no disease so frequent and uniform in its character occurs as to entitle it to the appellation of endemic. The common continued fever, often terminating in typhus, is frequent among the adult population of every age and sex. It does not appear that there is any material difference between the diseases of those that reside in villages, and those that live in the country ; yet it is believed that the greatest number of aged persons, in proportion to the population, will be found among those residing in the country. Nor is this to be ascribed to the superior purity of the air they breathe ; it may with greater propriety be imputed to their more simple and regular habits of life.

Hydrography.—The Forth, the Bodotria of the Romans, when it comes into contact with this parish, is not attractive either for its beauty or the volume of its waters ; but during its course of sixteen miles, in which it forms our northern boundary, it receives such accessions from the Teith, the Allan, the Devon, on the north, and from the Bannock, and other small streams on the south, that it not only becomes a magnificent river, but speedily swells out into an arm of the sea. It is navigable as far as Stirling, and the tide is perceptible for a mile above the town. The banks of the river are in general very low ; and in several places, artificial mounds are necessary to prevent its overflowings. Lime and coal are shipped at Fallin ; brick and tile at Throsk. These are our

only harbours. Though we have no other great river, it may perhaps be marked as a singularity, that we have streams flowing in every direction. At Randyford, the Endrick runs to the west, and empties itself into Lochlomond, whilst about half a mile to the south the Carron runs to the eastward, and discharges its waters into the Forth at Grangemouth. The Earl's Burn, and five or six lesser streams, run south, and increase the waters of the Carron. The Bannock, with an equal number of smaller rivulets, take a northerly direction, and fall into the Forth; whilst several small rivulets, rising about the middle of the Drylands, run duly east, and, uniting together, pass through the parish of Airth, and fall into the frith nearly opposite to Tulliallan.

A little to the west of the Earl's Hill, there is a large artificial dam, for collecting water to supply the works on the Carron. On the evening of the 25th of October 1839, the waters burst forth, and did considerable damage; but whether it was owing to the earthquake, which was distinctly felt in many parts of the parish that night, has not been clearly ascertained. The only lake in the parish is Loch Coulter, about two miles in circumference; shallow to the west, but very deep to the north-east.

In 1755, during the great earthquake by which Lisbon was destroyed, Loch Coulter was greatly agitated, and it was then, it is supposed, that a large stone, in weight about a ton, was raised from its bed, and carried towards the shore. Several years ago, a neighbouring farmer, availing himself of a hard frost, seized upon all the stone that was above water, so that now no part of it is visible, and the cairn of stones with which it is surrounded is generally covered with water.

Auchentillilin's Spout on the Carron, and Gilmour's Linn in Touch Burn, are our only cascades. They are both beautiful; but, neither from the quantity of water, nor the height of the fall, not above 20 feet, are they deserving of any particular description.*

Geology and Mineralogy.—This extensive parish presents geological appearances of very considerable interest. The flat district, or carse, which extends from the banks of the Forth to the rising ground on the south, a mean distance of about two miles, appears at a former period to have been completely submerged in water. The vast quantities of marine shells which are scattered in beds over the whole of this portion of the parish, furnish incontestible proof, that the land, which now yields the richest crops,

* The accounts given of the Carron Bog are a good deal exaggerated.

has been reclaimed from the wide domain of waters. Immediately beneath the surface, there is a bed of clay, from six to eight feet in thickness, which gradually shades into a soft alluvial deposit, of a bluish colour, resembling exactly in smell and appearance the larger quantities of mud which lay along the banks of the river Forth. Underneath these clay and alluvial beds, at a depth of twenty feet, there occurs a layer of moss, about two feet in thickness, in which are found the bark and flora of the birch and hazel tree, in a high state of preservation. Next in order are boulders, imbedded in clay or sand, and consisting chiefly of greenstone, hornblende, porphyries, schist, and quartz, in small pieces. These are occasionally intermixed with conglomerate and sandstone. And what renders these boulder beds strikingly remarkable, is the fact, that they run in straight lines from north-west to south-east. Wherever the current of the river has crossed them, and laid them bare, they can be traced for several miles, running in the above direction. If these stones have been abraded from their native rocks, in the high country on the north and west, by a current of water, their linear position will indicate the direction in which it has flowed. The boulders are succeeded, after a thin division of sand, by regular strata of sandstone and shale, which alternate, until, at the depth of twenty fathoms, they are interrupted by a seam of coal 2 feet 10 inches in thickness. The quality of this coal is not distinctly ascertained, as it never has been wrought.

Analysis of the Carse Soil.

Water,	10 parts.
Silica,	44
Alumina,	28
Carbonate of lime,	2½
Organic matter,	6
Oxide of iron,	1½
Soluble salts,	1
Soluble matter,	2
Loss,	5
	100

Passing to the upland district of the parish, the geological features are entirely changed. The surface is rough and unequal, and broken by deep gorges, which beautifully contrast with the bold and precipitous rocks by which they are overhung. The rock here, of most frequent occurrence, is trap. It is of great thickness, and, in the western faces of the craigs, stands in polygonal columnar forms, perfectly perpendicular to the horizon. These craggy rocks, which are uniformly steep in the western side,

slope gently toward the east. They repose upon a bed of sandstone, of a whitish-grey colour; but in passing downward it becomes a whitish-yellow, and at last shades away into a yellowish-brown.

A general idea of the different strata of rock may be conveyed in the following accurate table of Lieutenant-Colonel Imrie, as given in the second volume of the Memoirs of the Wernerian Natural History Society.

Table of Strata at Murray's Hall.

1. Vegetable soil, about	2 feet in thickness.
2. Trap, columnar,	60
3. Trap, amorphous,	16
4. A narrow line of trap much decomposed,	2
5. Trap, compact,	3
6. Sandstone,	3
7. Narrow strip of slate-clay.	
8. Sandstone,	8
9. Slate-clay,	6
10. Dark bluish-grey limestone,	3
11. Slaty-clay mixed with glance coal,	4
12. Sandstone,	13
13. Slate-clay containing narrow lines of sandstone,	8
14. Slate clay almost black,	17
15. Dark-bluish grey limestone with entrochi and small particles of pyrites imbedded,	6
16. Bituminous shale passing into slate clay,	6
17. Bituminous shale with a mixture of calca- reous matter and pyrites, depth unknown.	

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A few simple minerals are found in this district of the parish. Calc-spar is obtained along with the limestone. Heavy spar is met with in several parts of the moorland district. Ironstone of excellent quality is found in balls, in the roof of the upper coal seam at Auchenbowie, and has been wrought along with the coal for the last fifteen years; calc-tuff is also obtained at the same place. The common jasper and agate are sometimes met with. In the soil and sub-soil are found blocks of granite, small-grained gneiss, mica-slate with garnets, clay-slate, red sandstone, quartz, compact felspar, claystone porphyry, sandstone, chlorite slate, conglomerate rocks, basaltic hornblende, and sometimes shale and coal blended with calcareous spar.

Few fossil organic remains are found in the parish. Those that belong to the animal kingdom are chiefly bivalve shells. A few of the univalve shells are also met with in the shale accompanying the limestone. When sinking the coal-pits in Plean, a bed of shale is met with, composed almost entirely of bivalve shells, belonging to the *Mytilus* genus. In the vegetable kingdom are found the remains of *Lepidodendron*, *Stigmaria*, and *Sigillaria*.

Coal.—The coal mines are exceedingly valuable, and have been very extensively wrought. They lie on the south-east side of the parish, in ground considerably lower than that wherein the trap rocks abound. The collieries of Greenyards, Bannockburn, Plean, and Auchenbowie, may be regarded as forming one large coal-field. There are several small seams of little value, but the two best ones are wrought. Of these, the lower is the most important, being both thicker and of better quality than the other.

The dip of the coal is toward the north-east, and the crop can be distinctly traced toward the west and south-west. On the north, however, the dip of the coal is not so well known, but, so far as can be ascertained, it is either cut off altogether, or sunk to a depth which has not yet been reached. The angle of dip is one foot in three on the north side, which seems to form the boundary line of the great northern coal formations in Scotland. At Bannockburn the strata dip one foot in eleven; at Greenyards, one foot in six.

The sections of the coal, and the depth of the shafts at Greenyards are as follow:—

	Feet.	Inches.
Greenyards' deepest shaft, 72 fathoms:—		
Rough or mid coal,	0	4
Stone division,	0	2
Main coal,	2	3

Hard sandstone and pavement form the roof of this coal.

At Bannockburn both the thickness and quality of the coal undergo a very considerable change. The following section shows the difference:

	Feet.	Inches.
Upper or roof coal,	0	9½
Slate coal,	0	3½
Mid coal,	1	0
Line clay,	2	6
Main coal,	1	10

The roof here consists of shale and pavement, and the deepest shaft to the main is 58 fathoms. A shaft, however, is now in progress on the inclination of dip, the depth of which will be 95 fathoms.

On the lands of Bannockburn the upper and less valuable seam of coal has been wrought for the last three years. Its quality is inferior to that of the main coal, and its average thickness is 19 inches. The strata of rock of most frequent occurrence in the district where the coal mines are situated, are sandstone and shale. Bars of ironstone are found in some of the shale beds. There is also a vein of limestone, of bluish-gray colour, thickly incrusting with marine shells. The coal mines in this parish are extensive—

ly wrought, and have been long celebrated for the excellent coals which they produce. For durability and strength of heat, the best Bannockburn coal is scarcely equalled, and certainly not surpassed, by any other coal in Scotland.

Section of coal at Plean, (deepest shaft 33 fathoms.)

	Feet.	Inches.
Roof coal,	0	6
Stone,	0	2
Mid coal,	0	9
Fire clay,	1	11
Main coal,	1	10

The soils of the parish may be arranged under three varieties 1. the new alluvial or carse; 2. the old alluvial; 3. the untransported, or that which is formed by the disintegration of the trap rocks. The old alluvial may be subdivided into the dryfield and moorland—the one is upon a gravelly subsoil, whilst the subsoil of the other is a retentive clay. The following analysis will show the constituent parts of the old alluvial and untransported soils :

Analysis of old alluvial soil.		Analysis of soil on trap rocks.	
Water,	6 parts.	Water,	5 parts.
Silica,	54	Silica,	60
Alumina,	23	Alumina,	14
Gravel,	7	Gravel,	10
Organic matter,	1	Oxide of iron,	1½
Oxide of iron,	2½	Soluble matter,	1
Soluble salts,	1	Organic matter,	4
Loss,	5½	Loss,	4½
	100		100

Much is doing in the parish to improve the soil. Draining and trenching, and an improved mode of cropping, will soon banish from the farmer's nomenclature such terms as sour soil, wet soil, stiff soil.

Zoology.—Vertebrated Animals.—

MAMMALIA.

Plecotus auritus	Erinaceus Europæus
Vespertilio murinus	Sorex araneus
Sorex fodiens	Talpa Europæus
Meles taxus	Vulpes vulgaris
Mustela vulgaris	Lutra vulgaris
———— putorius	Mus musculus
Mus sylvaticus	———— rattus
———— decumanus	Sciurus vulgaris
Lepus timidus	Arvicola aquatica
———— cuniculus	———— agrestis.
Cervus capreolus	

The common bat is a well known animal. The extent of the wings is about nine inches. One was caught at Plean which measured eleven inches.

The hedgehog is found in most places of the parish.

The badger is seldom met with. Foxes are plentiful. They

are subject to a disease that causes the hair to fall from their tail. In that state, they are sometimes found dead. The weasel is common in hedge-banks and stone walls—a great destroyer of mice and other vermin. A white variety exists in the neighbourhood of Auchenbowie. The founmart occasionally makes its appearance in the poultry-yard, and often commits great ravages among domestic fowls. The otter is found on the banks of rivers and lakes. Among the many safe retreats of that animal, few will match with the following: The water which comes from the old coal-workings of Bannockburn and Auchenbowie joins the river Bannock, a little below the village of Bannockburn. Up this river the otter has found its way, and when it has reached the excavations it is safe. Its footsteps are seen on the sand banks that are thrown up by the water. Attempts have been made to destroy them, but they always escape. When danger approaches, they retire into one of the many intricate windings of the place, and are secure from farther molestations.

The squirrel is common in the woods; but it is not always content with hazel-nuts, beech-mast, and fir-cones;—it frequently attempts to climb over garden walls, and is sometimes successful. It carries away the fruit for its young. A young man at West Plean, one summer day, after he had eaten his dinner, lay down under a tree. He had not remained long in that state when he felt something stirring about him. When he got up a squirrel ran from him towards a tree. When it got behind a branch it peeped over it in a playful mood, seeming to enjoy the joke. It was probably the few crumbs of bread that remained in his pocket, that induced this lively animal to approach so near him.

The water vole, or water rat, is found about the banks of rivers and ditches, and lives chiefly on the roots of water plants. Dr Fleming, in his *Natural History of British Animals*, says, "It is probable that this species becomes torpid in the cold months." It has been found, however, to be very active in winter. A gentleman belonging to the parish had his crop of celery destroyed one winter by these animals. In the months of December and January, the crops began to look sickly. When it was examined to ascertain the cause, a tunnel was found to run along the centre of the ridge. The moles were blamed for the mischief. A mole-trap was set in the passage; but, instead of moles being caught, three of the water voles were captured.

The roe is plentiful in the upland district of the parish, particularly in the woods of Plean, Auchenbowie, and Sauchie.

BIRDS.

Lagopus Scoticus
Perdix cinerea
Buteo nius
Caprimulgus Europæus
Curruca atricapilla
 ----- *sylvia*
Motacilla flava
Parus major
 ----- *cæruleus*
Certhia familiaris
Ortygometra crex
Scolopax rusticola
Anas boschas

Falco tinnunculus
Otus vulgaris
Saxicola Cenanthe
Regulus cristatus
Cinclus aquaticus
Anthus pratensis
Fringilla linaria
 ----- *carduelis*
Ardea cinerea
Fulica atra
Vanellus cristatus
Anser ferus.

The black-grouse and moorfowl are found in the moorland district of the parish. Partridges are plentiful. This season, that beautiful little bird the golden-wren has made its appearance. In the short days of winter, it is very active in examining the chinks of the trunks of old trees, and pouncing upon the unsuspecting insect that had laid itself up for the winter. The yellow wagtails commonly build their nests in the heaps of coals that are placed near the mouth of the coal-pit. They have a strong attachment for their young ones. Last year, a coal heap required to be removed, and in it was found a yellow wagtail's nest, with young ones in it. The old birds showed great anxiety at the removal of their brood: they followed those who had the nest. A shelf was put up in a pig-sty, and the nest placed upon it, and the old ones came and fed their young, until they were able to shift for themselves. They seemed to pay no regard to the inhabitants of the sty. It seldom happens that such opposite characters are found sleeping in the same dormitory.

The wild duck frequents the small lochs of the parish; and the wild goose is sometimes to be seen in Loch Coulter.

FISHES.

Salmo salar
 ----- *albus*
 ----- *trutta*
 ----- *fario*
Anguilla vulgaris
Gasterosteus aculeatus

Osmerus eperlanus
Esox lucius
Leuciscus phoxinus
Platessa vulgaris
Perca fluviatilis.

The salmon, whiting, sea-trout, and smelt are found in the Forth, the perch and pike in Loch Coulter, and the minnow, stickleback, and common trout, in the small streams of the parish.

REPTILES.

Vipera communis
Rana temporaria
 ----- *vulgaris*

Triton vulgaris
 ----- *aquaticus.*

The viper or adder is sometimes met with, basking in the sun on banks facing the south.

Forests or Plantations.—From its variety of soil and climate almost every species of tree to be found in Scotland prospers in this parish. The specimens of the fir tribe may be mentioned as equal if not superior to what are to be met with in other parts of the country. The largest plantations are on the lands of Sauchie and Touch, amounting to nearly a thousand acres. It may be questioned if there is as much more ground under wood in all the rest of the parish. In front of Bannockburn House there are two silver firs, *Pinus picea*, remarkable at once for their size and appearance. In the same park there is a very beautiful and large sweet chestnut. The ash trees in the park of Carnock are of great size,—one of them is counted the largest in Stirlingshire. In the woods of Touch, there are some very large old oak trees, and a fine cedar, supposed to be the largest in Britain. We have very little natural wood in this district; and though there are numerous fruit trees scattered through the parish as well as in the gardens, there is hardly in it any thing that deserves the name of an orchard.

Botany.—Being of considerable extent, and including almost every variety of soil and surface, except high hills and sea shore, this parish presents a fertile field for the researches of the botanist. A list of all the plants found in it would occupy too much space for a work of this nature; but the following comprehends most of the rare or interesting ones that are to be met with.

Hippuris vulgaris	Campanula latifolia	Narthecium ossifragum
Chara vulgaris	Viola palustris	Peplis portula
Circea lutetiana	 lutea	Berberis vulgaris
Veronica scutellata	Verbascum thapsus	Alisma plantago
Pinguicula vulgaris	 lychnitis	Trientalis Europæa
Valeriana officinalis	Hyoscyamus niger	Epilobium angustifolium
..... pyrenaica	Atropa Belladonna	 hirsutum
Eriophorum vaginatum	Solanum dulcamara	Vaccinium vitis-idaea
Dipsacus fullonum	Lonicera periclymenum	Daphne laureola
Asperula odorata	Chenopodium Bonus-Hen-	Polygonum bistorta
Plantago media	ricus	Pyrola media
Potamogeton fluitans	Gentiana campestris	Chrysosplenium alterni-
..... lanceolatum	Sanicula Europæa	folium
..... crispum	Chærophyllum sativum	Saxifraga granulata
Radiola millegrana	 sylvestre	 hypnoides
Achusa sempervirens	Scandix pecten-veneris	Saponaria officinalis
Cynoglossum officinale	Myrrhis odorata	Stellaria nemorum
Symphytum officinale	Conium maculatum	 glauca
Echium vulgare	Smyrnum olusatrum	Sedum telephium
Primula veris	Viburnum opulus	 villosum
Anagallis arvensis	Parnassia palustris	Agrostemma githago
Convolvulus sepium	Oxera rotundifolia	Reseda luteola
Lythymachia nemorum	Allium ursinum	Prunus padus

<i>Rubus saxatilis</i>	<i>Geranium phæum</i>	<i>Gnaphalium germanicum</i>
<i>Comarum palustre</i>	 <i>sanguineum</i>	 <i>minimum</i>
<i>Chelidonium majus</i>	<i>Fumaria capreolata</i>	 <i>uliginosum</i>
<i>Nymphæa alba</i>	<i>Genista Anglica</i>	<i>Senecio sylvaticus</i>
<i>Cistus helianthemum</i>	<i>Ononis arvensis</i>	<i>Orehis bifolia</i>
<i>Aquilegia vulgaris</i>	<i>Ornithopus perpusillus</i>	 <i>latifolia</i>
<i>Anemone nemorosa</i>	<i>Astragalus glycyphyllos</i>	 <i>maculata</i>
<i>Ranunculus auricomus</i>	<i>Trifolium arvense</i>	<i>Listera ovata</i>
..... <i>scleratus</i>	<i>Hypericum humifusum</i>	<i>Arum maculatum</i>
..... <i>hederaceus</i>	 <i>montanum</i>	<i>Empetrum nigrum</i>
<i>Trollius Europæus</i>	 <i>pulchrum</i>	<i>Juniperus communis</i>
<i>Antirrhinum linaria</i>	<i>Cichorum intybus</i>	<i>Equisetum arvense</i>
<i>Cardamine amara</i>	<i>Bidens tripartita</i>	 <i>palustre</i>
<i>Erodium cicutarium</i>	<i>Tanacetum vulgare</i>	 <i>limosum.</i>
<i>Geranium sylvaticum</i>	<i>Artemisia vulgaris</i>	
..... <i>pratense</i>	<i>Gnaphalium dioicum</i>	

II.—CIVIL HISTORY.

From its situation, this parish was long exposed to scenes of turbulence and blood. When the carses were a morass, the narrow space between them and the Lennox hills afforded the chief, if not the only line of communication between the northern and southern parts of the island, nearly cut asunder by the Friths of Clyde and Forth. Nor is it till you reach this parish, that there are any fords at which men or horses can pass the Forth; and even now, there are no bridges lower down than that of Stirling. Our neighbourhood to the Roman wall, and the Roman road, which ran for seven or eight miles through the parish, might be thought favourable to civilization, and so they would had the province *Vespasiana* been retained. But this province existed only a few years. In the year 209, Severus lost 50,000 men in attempting to recover it; and on his failure, it is believed that the woods between the wall and Forth were cut down by the Romans, thus desolating the country, to prevent it from sheltering the natives in their incursions against them. If this district was in a turbulent state during the time of the Romans, it was not likely to be much improved during the long and dark period which succeeded their departure. When Scotland, with a portion of the north of England, was divided into four kingdoms, the Northumbrians and Cumbrians on the south, the Picts and Scots on the north,—this parish, with a great part of Stirlingshire, was, as in the days of the Romans, a battle-field on which these nations contended,—a sort of border debateable ground, which sometimes belonged to one nation and sometimes to another. Even after Scotland was united, and Stirling became a fortified town and a royal residence, little was added to the peace or improvement of the neighbourhood. Contests about succession to the crown introduced the English, who, like the Romans, wished

to bring the country under their subjection, and in prosecution of this object, shed much of their own blood as well as that of the natives. The Roman road appears to have been employed by different armies in marching through this parish ; and it was opposite to Kildean, the point at which that road first reaches the Forth, that the battle of Stirling, or more correctly of Corntown, was fought in 1297. The Scots were commanded by Wallace, and the English by Lord Surrey and Cressingham. Part of the English army had crossed the bridge, which was of wood, and so narrow as to admit of only two men abreast, when they were attacked and routed by the Scots. It has been questioned whether the bridge was broken down by accident or design, or, indeed, if it was broken down at all. The water at the ford is not above two feet deep at low water, and Wallace's dexterity was displayed in attacking, when only a part of them had crossed the river. Cressingham was slain, Lord Surrey, who was on the south bank, fled with the remainder of the army, but was speedily pursued, overtaken, and severely defeated at Torwood. About seventeen years after, Edward himself, with a great army, advanced towards Stirling by the same road. The English are said to have encamped at the Roman station at West Plean, the night before the battle ; and on the 24th of June 1314, was gained one of the most complete victories ever obtained by the Scots over their oppressors. All the facts, and varied controversies, about the battle of Bannockburn are so well known, as to render any detail unnecessary. These were contests between rival nations ; but on the 11th of June 1448, was fought the battle of Sauchie, between James III. and his rebellious subjects. A stone is still pointed out, not far from the modern house of Sauchie, in which it is said that the standard was fixed ; and a large cairn of stones in the neighbourhood was probably raised over the bodies of the slain. The field is little more than a mile from the Bored Stone, and about two miles and a-half from St Ninians. The King fled from the battle, was thrown from his horse at Milton ; and the house into which he was carried, and where he was slain, is still shown. In the minority of James VI., some of the bloody scenes transacted in Stirling extended also to this parish. In 1511, the Earl of Lennox, the King's grandfather, held a Parliament in Stirling, a party from Edinburgh marched during the night, and attacked them unexpectedly next morning. In the scuffle, the Regent received his deadly wound at Newhouse, between St Ni-

nians and Stirling. The spot was marked by a heap of stones and rubbish, which was removed in 1758, when the road was improved. In the days of Cromwell and Charles II., though no battle was fought in this parish, it was harassed by the contending armies marching through it, or encamping in its neighbourhood. A century has nearly elapsed since it was exposed to the last of these turbulent scenes. In September 1745, the Pretender marched through the parish with his army, he and several of his nobles remaining one night at Bannockburn House, to which they had been invited by Sir Hugh Paterson, the then proprietor. On his return from the south, Bannockburn House was his headquarters during the month of January 1746, whilst his followers were lodged in the surrounding villages. A mark in one of the rooms, produced by a bullet that was fired at the Prince, is still shown. On the morning of the 17th of that month, his army assembled on Plean Moor, and thence marched to the battle-field, west of Falkirk, where they obtained a victory over the King's troops. On the approach of the Duke of Cumberland, they retreated to the north, having, 1st February, blown up the Church of St Ninians, which had been used as a powder magazine. Besides the destruction of the church, several persons were killed, and others severely wounded. The steeple remained entire; and, as the new church was built at some distance from it, strangers seldom fail to inquire what can have caused so unnatural a disjunction.

Eminent Men.—Sir John Graham, styled by Wallace his right hand, was certainly a person of note, though few authentic facts have been transmitted concerning him.

Colonel John Erskine of Carnock was Commissioner from Stirling in the Parliament of 1707, and voted in favour of the Union. He was also Lieutenant-Governor of Stirling Castle, and planted the trees at the east of the King's Park.

Henry the historian was born at Muirton, in the carses.

Miss Hamilton resided at Crook, when she wrote the Cottagers of Glenburnie.

Mr Harvey, the painter, is a native of the village of St Ninians.

Heritors.—The heritors are a numerous body. The stipend is localled upon 125; but several of the heritors hold more than one number, and some of them are so small as to render them ridiculous. Once and again, there is one-tenth of a lippie of meal, and one-tenth of a lippie of barley, of old stipend, with two-twelfths

of a lippie of meal, and two-twelfths of a lippie of barley of augmentation, with one penny Sterling money, stipend. Three noble-men have estates in the parish; but none of them reside or have houses in it. The Duke of Montrose, who has still a good estate in the moorlands, is superior of an extensive tract. Lord Abercrombie has a small, but very valuable estate in the Carse. The Earl of Dunmore's landed property in this parish is of great extent; and his residence, Dunmore Park, is in our immediate vicinity. The greatest landed proprietors, are, Mr Murray of Touchadam and Polmaise, and Mr Ramsay of Sauchie, in this parish, and of Barnton in Mid-Lothian, and Lord Dunmore. Next to them are Touch, the Hospital of Stirling, Carnock, Craigforth, Plean, Auchintowie, Throsk, East and West Greenyards.

Parochial Registers.—The oldest parochial register is that of births and baptisms, commencing at 1643, and continued downwards with a blank betwixt 1711 and 1717. Proclamation of banns, at 1688, has two blanks, viz. from 1719 to 1725, and from 1754 to 1774.

The session records, down to 1838, are contained in ten volumes folio. The first volume now in existence commences November 1653; but there is part of a minute, dated 1608, and two extracts from a former volume, 1631 and 1639, are entered anew under 1699, in which John Drummond of Carnock and Skeock grants right to certain seats to John Rollo of Bannockburn. James Edmonstone was minister. The record 1653 commences with, "This day the session being frequentlie, *i. e.* fully convened," but often immediately after the date, it is "compeared" such and such persons. No sederunt is marked till 1660, nor any mention made of prayers, though probably offered up, either at the opening or close, till after the Revolution. But though modern forms were not observed, much business was transacted. From 1653 to 1750, with few exceptions, there were from twenty-four to thirty meetings of session in the year. The minister and elders exercised most extensive powers, both in passing acts, and in punishing delinquents. Besides licentious persons, drunkards, Sabbath-breakers, and slanderers, they took cognizance of those guilty of theft, prevarication or perjury, of scolding and railing. Severe enactments are made against those that "haunt public-houses, that do not keep the kirk, and the examinations,"—but idle persons, such as vagrants, vagabonds, and sturdy beggars, and also "those that resett them," are objects of their highest displeasure. Nor was it merely by

admonition and censure, that they sought to repress these evils. In 1665, we find the following entry, "because this kirk is troubled with sturdy beggars every Sabbath, appoint James Wilson, constable, to wait at the style next Sabbath to put them away, and, if refracterie, to put them in the stocks or steeple." Delinquents in general were subjected to fines; and, to keep good order at marriages, it was enacted, that, should any thing of a contrary nature take place, the money previously lodged with the session-clerk should immediately be forfeited to the poor. At times they threaten to give them over to the civil magistrate, but not unfrequently they appear to have set them in the "jugs," or banished them the parish by their own authority.

If the session were zealous in repressing evil, they were at the same time active in promoting good. Much wisdom and tenderness was displayed in reconciling families and neighbours. The elders were exhorted to see that worship was maintained in every family; and great attention was paid to those who sought for baptism for their children, or for admission to the Lord's table. The education of the young was an object of peculiar care, and they seem to have exercised an unlimited authority, both over the teacher and his scholars. They appoint the parochial schoolmaster and allot him his salary,—they instruct him what he is to teach, and fix his hours of teaching,—when dissatisfied, call him before them, admonish, reprove, or dismiss him at their pleasure. They enact that no private teacher shall open a school without their permission; and that none shall be opened within two miles of the parochial school.

The topics enumerated, together with the management of the poor, in a populous and extensive parish, might be supposed to afford sufficient employment to any kirk-session. But, in addition to all these, the kirk-session of St Ninians took the chief management of the fabric of the church and the arrangement of its seats. They build an aisle from their own funds, which is kept entirely under their own control, and part of their fines are laid out in repairing the church-yard dikes. Heritors make application to them for seats, which they erect, exchange, or alter very much at their pleasure. By their order, sums of money were collected for propagating the Gospel; for building churches, particularly in Ireland; for people who had lost their property, or who were to undergo dangerous operations; and, once for a man who had been taken captive by the Turks. Nay, once and again, we find them

actively employed in building or repairing bridges. They assist in repairing the bridges over the Carron and at Chartreshall; and, in 1670, they not only urge the heritors, but the elders collect largely themselves to erect a stone bridge, instead of the wooden one, over the Bannock in the upper carse.

It is not to be supposed that the same activity prevailed under every incumbent. Mr George Bennet, who was also proprietor of East Livilands, was minister from 1655 to 1674. In his time the parochial machinery was in full operation; nor does the accession of Charles II, or the introduction of Episcopacy, appear greatly to have paralyzed it. In the early part of his ministry, grievous complaints are made against Cromwell's English soldiers, and numbers are summoned before the session, for harbouring or keeping company with them. At a later period, some parishioners are "convened for beating Argyle's men on the Sabbath day."

On the 12th of April 1676, "Mr William Fogo was formallie admitted to the exercise of the ministerial function in this kirk." The session frequently met; but the minutes are not so full as in the time of his predecessor. He was succeeded in 1684 by Mr James Fullarton, who, "on said day, was formallie admitted to the exercise of the ministrie in this church." In 1687, "Mr Wright of Alloa preached and institute Mr Forsyth, formerly minister of Clackmannan, to the exercise of the ministry in the parish of St Ninians in the face of the congregation." Complaints are made of persons not coming to the communion, nor keeping their own kirk; both men and women are summoned before the Session for attending conventicles, and having their children irregularly baptized.

A sequestered spot is pointed out, where it is said the Covenanters assembled, and the station where the watchmen stood to give notice when the soldiers left the Castle of Stirling, coming to attack them.

Mr Forsyth appears to have been a keen Episcopalian, and soon after his admission, Mr Cooper, in 1688, was ordained "by the unite Presbyteries of Stirling and Dunblane in the Presbyterian meeting-house of Bannockburn." Mr Forsyth was alive after Mr Cooper left Bannockburn in 1692; but there are no records of his session after 1690. The Presbytery occasionally supplied the pulpit of the meeting-house, and the only notice of Mr Forsyth is a complaint against him "about the state of the kirk and the keys of the kirk-door." "In June 1695, the united Presbyteries of Stir-

ling and Dunblane did solemnly admit, and, *debito modo*, ordain Mr John Logan, formerly minister of the Gospel at Lecropt, to be minister of the Gospel at St Nihians." He was cordially received, and during his time, parochial superintendence reached its highest perfection. There were between forty and fifty elders. These were divided into committees, and the detail of their proceedings would fill volumes. Mr Logan died, 14th July 1727, the session marking with special care "that he had been minister here thirty-two years and thirty-nine days." Once and again, they tenderly allude to the loss they had sustained.

Under November 22, 1727, we have the following minute: "The which day the heritors, to the number of one hundred and sixty, besides ten letters or thereby from heritors not residing in the parish; the whole elders to the number of forty-six, and about eight hundred and twelve heads of families, and none at all of either ranks opposing, mett and most cheerfully subscribed a call to the Rev. Mr Archibald Gibson, minister of the Gospel at Dunblane, to be their minister." Mr Gibson went to Edinburgh in 1732, and was succeeded by Mr Mackie of Forteviot in March 1784, in direct opposition to the wishes of the people; and during his incumbency about one-half of the parishioners are said to have joined the Secession. On the retreat of Prince Charles, 1st February 1746, the church, which had been used as a powder magazine, was blown up and several persons killed. Some years elapsed before the new church was erected, during which public worship was conducted in the glebe in summer, and in the West Church of Stirling in winter. The Lord's Supper was once and again dispensed in the open air; and we find the congregation in the West Church in November 1750. They must have entered the new church in the end of that year, or early in 1751. The session, in Mr Logan's time, had enlarged the church by building an aisle, and they now requested the heritors to refund to them the poor's money which had been laid out. This they refused; and Mr Mackie, going to London, collected £504, "which was given mostly for the support of an assistant." This gave rise to a law-suit between the heritors and session, and in 1780 the heritors prevailed, and the Court of Session ordered that henceforward nothing should be paid to the assistant from this fund.

Mr Mackie went to the West Church, Edinburgh, 1753; and the session were successful in procuring the harmonious settlement of Mr John Gibson, who was ordained in May 1754. He

was translated to Edinburgh in 1765, and it was not till after more than seven years' litigation that Mr Thomson from Gargunnoch was admitted his successor. Mr Finlay of Dollar, who presided, delivered the celebrated speech for which he had afterwards to apologize to the General Assembly. On Mr Thomson's admission, the great body of the people left the church and built a Relief house, in which there is still a numerous congregation.

The late Mr Sheriff succeeded Mr Thomson in 1788, and in October 1823 he resigned his charge, and became pastor to a Baptist congregation in Glasgow.

Antiquities.—The Roman road, of which hardly a trace now remains, was unquestionably our most remarkable antiquity. It entered this parish from the Torwood, and, running in a north-westerly direction, reached the Forth at Kildean, where was the wooden bridge and ford already mentioned. From Kildean the causeway ran westward through the lands of Craigforth, till near the present Drip bridge, where there is another ford of the same depth, two feet, as that at Kildean, and through which the Roman soldiers are supposed frequently to have marched. A branch struck off from the great road, probably before it reached St Ninians, ran to the west towards Cambusbaron through the farm of Bearside. The improvements on this farm caused part of it to be removed within these four or five years, and a few stones, the last remnants, are still to be seen; but whether this road led to the ford of Few, or to the Roman station, or the Castle hill above Touch, is altogether uncertain.

There are five places in the parish denominated Roman camps, though it is evident from their size they can have been nothing more than stations. Two of these, with the one at Stirling, would command a complete view of the Forth, from the place where it becomes fordable, till it is covered by the steep and rugged ground behind Gargunnoch. These three frontier stations could all communicate, by signal, with Plean, as Plean could with Torwood—and Torwood is in view of Camelon and the Roman wall. When the woods were destroyed, the passage of the Forth by any enemy could, in a very short time, be communicated to the soldiers guarding the wall. It is more difficult to ascertain the use of the other camps, one of them being among the rugged rocks, to the west of Sauchie, and the other not far distant on the low grounds of Touchgorum.

The ruins of Sir John de Graham's Castle are near the western

extremity of the parish, in a very sequestered spot, and which, in early times, must have been difficult of access. The appearance of the ditch, and the thickness of the wall, leads to the conclusion, that it was a place of considerable extent, and great strength. Wallace is said often to have retired to this castle, and Graham was slain when fighting along with him at the battle of Falkirk. Sir J. Graham was a younger brother of the family whence the Dukes of Montrose are descended. Dundaff, whence they take the title of Viscount, and the greatest part of the moorlands, at one time belonged to them, and they were patrons of the Kirk o' Muir. It is reasonable, therefore, to conclude that it was in honour of some one of this family that the Earl's hill and the Earl's burn were named.

No part of the fabric of the Kirk o' Muir now remains. The burying ground is still used; and a small erection at the gate, said to be that in which the elders stood when collecting, was in truth built for a school, but is now in ruins. It was a place of worship in Popish times, and a field in the neighbourhood is still called the Priest's croft or field. In the Commissary's list of parishes, Kirkamuir is stated apart from St Ninians; and it is said to have been one of the first places in which the Lord's Supper was dispensed, according to our present mode, after the Reformation. It is nearly ten miles from the parish church, and five west of Buckieburn.

St Ninians parish contained other three chapels,—one at Skeok, a mile below Bannockburn, dedicated to the Virgin, of which there are no remains, and nothing is now known. Another at St Ninian's Well, (whence Mr Nimmo says the parish derived its name,) has been repaired, and is used as a washing-house. A third is at Cambusbaron, of which there were some fragments in the memory of persons still alive; and to which a burying-ground appears to have been attached, as, in trenching the garden ground in the neighbourhood, a great variety of human bones were turned up.

The house of Sauchie, now in ruins, must have been intended as a place of defence. The loop-holes whence the archers shot their arrows, are still in perfect preservation. On the lands of Carnock there is a round tower called Bruce's Castle; and not far from this, at Plean Mill, a much finer square erection, the greatest part of which, however, has been used for the buildings on the farm. Except the name, there is no tradition when, by whom, or for what purpose either of these were erected. The bored stone, a little to the south-west of St Ninians, and the stand-

ing stones in Randolph field, near Newhouse, are permanent memorials of the battle of Bannockburn. There are several cairns or tumuli in the parish; but it is much more difficult to ascertain the events which they were intended to commemorate. Two of these, to a certain extent, have not long since been examined. On the lands of Sauchie, and not far from the supposed field of battle, there was a large cairn of stones, more than thirty yards in diameter, and upwards of twenty feet in height. On removing the smaller stones, which had evidently been collected from the neighbouring fields, there were found two coffins, the one somewhat larger than the other. These were of freestone, of the same quality as Catsraig quarry,—little more than a mile distant, and which is still wrought. The other cairn was on the lands of Craigengelt, in the high grounds of the parish. The name signifies the rock of terror, or the bloody rocks; and both its name and appearance give ground to believe that it had been the scene of many tragical events.*

In almost every field the remains of rude fortifications, such as entrenchments and breastworks, are still traceable, as well as Druidical cairns. About 150 yards north of Craigengelt House, there is a mound of the same kind as that which has been removed, but only one-half its size. It is also flanked with stones at equal distances from each other. In the upper part of Craigen-

* About two years ago the tenant was engaged in levelling and improving a field on the eastern extremity of Craigengelt, in which there was a large cairn or mound, known in the country by the name of the "*Ghost's Knowe*." It was quite circular, exactly 300 feet in circumference at the base, and which was flanked around by twelve very large stones, placed at equal distances, and it was 12 feet high, with a slight inclination to one side, and flat on top. On removing the turf and soil, it was found that the interior consisted of large and small stones built together with great care, which led the proprietor to think that it must have been a place of Druidical sepulture. About 6 feet from the centre, there stood four upright stones, each about 6 feet in height, describing an oblong figure like a bed. Within this a coffin was found, the length of which was about 7 feet, $3\frac{1}{4}$ broad, and $3\frac{1}{4}$ deep. The under part or bottom of the coffin was whin-flag, as was also the upper part or lid. Within this were found the remains of a human body of the ordinary size. The bones, except a very small part of the skull, were of the consistence of soft chalk,—the body had been enveloped in something like a mixture of decayed vegetable matter and tar, which, when exposed to the atmosphere, emitted a strong odour. Strict orders were given to the labourers that if anything like a coffin should be found, they were not to open it till either the proprietor or tenant were present. But one of them, an old schoolmaster, who knew something of antiquities, went during the night, and carried off a variety of articles, the nature and number of which are not now likely ever to be ascertained. With reluctance, he gave up a stone axe of beautiful workmanship, and a gold ring. The ring had had a jewel in it; but the jewel was out, and it was what is called "chased," and must have been worn on a very small finger. A labourer in the neighbourhood sold a variety of things of a rare description to a gentleman, in whose possession, it is believed, they still are. The axe and the ring were the only things obtained by the proprietor, J. Dick, Esq. of Craigengelt, and they are still in his possession.

gelt there are a number of artificial hills of great size. They are covered with fine grass, and are known by the name of the "sunny hills;" but as to their origin or use even tradition is silent.

Where the lands stretch towards the Earl's burn, there is a very solitary but lovely small valley, in which are three artificial hills, the raising of which must have cost great labour. The entrenchment is the smallest, and is called "Goodie's knowe." The middle one, the "Heart's hill," is by far the finest formed, being nearly circular, and 50 feet high, with a conical top. The third is the largest, of an oblong shape, with terraces on its sides. All of them are covered with the finest grass; and it is evident that the gravel and soil of which they are composed have been taken from the park wherein they stand. There is no tradition when or by whom these works were constructed; but one thing is certain, that the antiquary would be amply repaid for his labour in visiting these interesting remains of times long gone by.

III.—POPULATION.

In the former Statistical Account, the population, in 1755, is stated, on the authority of Dr Webster, to have been 6491. The session registers show the average number of births in the parish for that period to be 191 per annum. Assuming the record to exhibit the total amount of births, and there is reason to believe that it does so very nearly, this will give one birth to 34 inhabitants. Applying this principle to the earliest period to which the registers extend, the population appears to have been,

In 1645,	4760
In 1745,	5916

Taking the number of marriages at the present day, and comparing them with the present population, both of which elements are ascertained with the utmost exactness, and assuming the ratio to have been the same at the periods specified above, the very same results are obtained. A similar calculation proves Dr Webster's estimate of the population to have been very near the truth.

Population in 1792,	7079
1801,	6849
1811,	7636
1821,	8274
1831,	9552—males, 4656; females, 4894.

The population is believed to be still increasing, and the increase may be mainly attributed to the extension of trade and manufactures.

Population residing in villages in 1831,	5687
in the country,	3865
	9552

covered with furze and heath. It is now enclosed and cultivated. The plantations, whether in clumps or belts, add greatly to the beauty of the country, afford shelter, and meliorate the climate. But the great means of improvement have been,—clearing the land of stones, and the introduction of the system of thorough draining, and subsoil ploughing. Both of these have been well described, as well as practised, by Mr Smith of Deanston, the inventor.

To illustrate the benefits resulting from this improved mode of culture, a few facts may be stated from a farm in the immediate vicinity of St Ninians. This farm consists of 100 Scotch acres, whereof 38 are allotted to grain crops; and though it was previously cultivated according to the most improved system then in existence, even in the most favourable seasons, it produced only from 24 to 26 stacks. Since 1836, the whole farm, with the exception of 12 acres, has been thoroughly drained, and the number of the stacks in the barn-yard last year, 1840, was 42. The change, however, is still greater, when thorough draining has been introduced on land accounted nearly irreclaimable. A field which, previous to 1836, never yielded more than from 10s. to 15s. per acre, was, in winter 1835–36, thoroughly drained, and immediately after was placed under green crop. The produce of one acre of potatoes was measured. It amounted to 93 bolls, which, at 5s. the boll, gives L. 23, 5s.: deduct L. 13 for seed, working, and manure, and there remains L. 10, 5s. for the farmer. In 1837, the same field was sown with barley, and produced 10 bolls per acre. After deducting expenses, the farmer had for his share L. 10, 19s. 8d. In the third year it was in hay, of which it produced 2½ tons per acre, besides the aftermath. The value of the hay alone, at the average price of the season, was L. 11, 5s. per acre. It may be added, that this farm has nothing peculiarly favourable either in its soil, climate, or exposure.

In the corses, the system of farming is different from that followed in the dryfield. The rotation of crops in the former is, 1. fallow; 2. wheat; 3. beans; 4. barley; 5. grass; 6. oats. In the latter, 1. oats; 2. turnips, potatoes, or fallow; 3. wheat or barley; 4. clover; 5. and 6. pasture. There are few stones, and no springs of water in the corses, and very little wood. One great object is to carry off all stagnant water, and keep the land dry. To accomplish this, not only large and clear ditches are necessary, but wedge or ridge draining is very extensively practised, and has been found most beneficial.

The rent of a large portion of the dryfield is not above L.1, 10s. ; and an intelligent farmer says, the whole will not average above L.2 per acre. Grain rents have been partially introduced into the carses, and the worst lands are rated at 2, and the best at 3 bolls of wheat per acre. The carse lands to the east of Stirling are supposed to be at least 10s. per acre more valuable than those to the west.

The following is the average quantity of seed sown in the carses to the east of Stirling: wheat, 3 bushels; barley, 4 do. ; beans, 6 do. ; oats, 6 do. per acre.

The average returns per acre, wheat, 10 bolls; barley, 7 do. ; oats, 8 do. ; pease and beans, 10 do.

Lime is extensively used. Thirty single-cart loads of dung, or 7 chalders of slacked lime per acre, are, in the month of July, laid on the fallow ground preparing for wheat. Many carse farms are about 80 acres; but, as it is believed 100 acres could be wrought by the same strength, it would evidently be more beneficial to the farmer to have them of this extent.

Besides horses for working the farm, each farmer has a few cows; but there is very little live-stock in the carses, as the lands are too valuable for pasture. Their object is merely to keep up the supply of horses and cows for themselves.

Some excellent farm-houses and offices have lately been built, but two-thirds, it is believed, remain in their former homely state, and that, too, where rents to a high amount are paid.

A ploughman's wages, with bed and board, L.16; a servant woman, do. do., from L.6 to L.7. Many of the men sleep in stable lofts and bothies, a practice at once destructive of the habits of domestic life, and deeply injurious to their moral character.

Rent.—The valued rent is L.20,860. The real rent is considerably above L.40,000.

The duration of leases is nineteen years.

William Murray, Esq. of Touchadam and Polmaise, Vice-Lieutenant of the county, and principal heritor of this parish, first introduced that system of draining, which was known by the appellation of "wedge-draining," but which has since been more appropriately designated "thorough draining." The introduction of this leading improvement in agriculture may well lay a claim to be styled an era in the rural annals of Scotland, being so admirably adapted to its humid climate. The entire

process consists of two distinct objects, viz. thorough-draining and subsoil ploughing.

1. *Thorough-draining*.—This consists in a series of parallel drains, running all in one elevation, and terminating in a common drain, situated in the lowest part, or where the formation of the surface requires it parts, of the field. This drain is called the main, and is always deeper and wider than the parallel drains. It is, moreover, at right angles to the others. It is usually three feet deep, a foot to six inches in width at the bottom, and four feet wide at the top. These dimensions are necessary when the field is large, and even when small, if the subsoil be particularly tenacious, and retentive of moisture. The best mode of constructing this drain, is to build it with stone and lime in the form of the letter U, and then covering it with flags, care being had that the flags do not come nearer to the surface afterwards to be placed upon it, than twenty inches, in order that the subsoil plough may meet with no obstruction. The soil is then thrown over it, and it is then brought to the level of the arable surface, and so nothing is lost. Cheaper methods have frequently been followed with success, and these will easily suggest themselves to the practical farmer, especially that one of using a larger sized drain tile, manufactured for the purpose, and put in as is usually done in carse fields. The parallel drains are cut to the depth of two feet when tiles are to be used, and to thirty inches when stones can be had. Tiles are used almost always in the carse, because stones cannot so easily be procured, but in the dryfield the other mode is followed, as stones can be procured in sufficient abundance. The tiles are made in the form of, and in the same proportion as the letter U inverted, $\cap$; but to give the drain a greater degree of durability, as well as to prevent vermin from penetrating the soil, and thereby choking the drain, a flat tile is also used, upon which the other is placed. The soil is then cast into the drain, and the work is finished, and the expensive but most efficient improvement is hid from observation, working, however, like many of the operations of Divine Providence, in an unseen but most efficient manner, in the production of extensive benefit to the community. In the dryfield the process is somewhat different, as stones which are gathered on the field are used instead of the tiles. The drain, as mentioned above, being cut to the depth of thirty inches, the stones are broken so small as to pass through a ring of two inches and a half in diameter, and are then thrown into the drain to about the height of eight inches. Upon them is then placed a layer of old straw, hay,

roots of quickens, potato shaws, or such other suitable materials as can most easily be procured, and upon this an inch or two of the most tenacious soil dug out of the drain, which is all well trodden down and compacted, so as to present an impenetrable barrier to the incumbent productive soil, which is now thrown in, and the process is completed. Notwithstanding the elaborate and expensive nature of these improvements, there is not a doubt but that, even as a mercantile speculation, they do abundantly repay the landlord, and even the farmer, if he has a long lease; and without that no farmer either would or should undertake them; but the result will exhibit the fact better than any general statements.

2. *Subsoil Ploughing.*—The field being all thoroughly drained, as already described, the farmer, especially in the dryfield, is not yet satisfied that he has done his utmost to the production of a good crop. He therefore avails himself of the invention of James Smith, Esq. of Deanston, and sets to subsoil ploughing his fields. This is done by means of a large plough, in the shape of an old Scotch plough, without a sock, and generally drawn by four horses. The method is the following: An ordinary two horse plough always goes before, taking the usual depth of furrow, which is followed by the subsoil plough cutting to the depth of about ten inches deeper, and removing stones, at least all that do not amount to more than from three to four hundred weight, besides stirring effectually the subsoil, so that it serves more easily as a percolator, in permitting the surface water to find its way into the drains. When the plough encounters a stone larger than the horses are able to turn out, which is often the case, a lad following the plough for the purpose, marks it with a tally. Crowbars are then brought to bear upon it, and it is turned out, and broken to assist in draining the same or another field. The quantity of work done in a day by six horses and three men does not exceed, in general, half an acre; but it completes the utility of the draining system, and brings the productive powers of the soil into active operation. Another advantage anticipated and realized by the farmer is, that his manure, even in the wettest seasons, does not wholly lose its influence; whereas in fine or moderate, it produces its legitimate effects, and a good crop is always the consequence.

Quarries and Mines.—There are three freestone quarries, Cats-craig, Blackcraig, and Craigbeg, in which 54 quarrymen and 15 labourers are employed. The average wages of the quarrymen are 15s. per week,—the labourers, 11s. In the mines the miners have 15s. or 16s.; the labourers, 10s. 6d.

There is abundance of limestone in the parish, but at present it is wrought only in two places,—Craigend and Murray's Hall. The stone is found under the huge masses of trap or basaltic rock already described, and is wrought by miners. The works are separated from each other by a deep and narrow gorge, and the superincumbent mass appears as if hurled upon a rock of an entirely different description. The entrance to the mines is near the bottom of the precipice; and the stones, brought out in carts, are prepared and burned in kilns close at hand. The lime rock is about 5 feet thick; the roof and bottom are of stone, each from nine inches to a foot thick. The dip is to the north-east, at the rate of one foot in six or seven. Sales commence about the 1st of April, and terminate at Martinmas. Including both places, there are usually 24 miners and 10 labourers employed. The wages of the miners are from 15s. to 16s. per week; the labourers have 10s. 6d. The miners, perhaps from their exposure to damp, are rather liable to rheumatism; but in general they are healthy, though it is seldom that either they or colliers attain to a very great age.

Our coal mines are by far the most valuable in this parish, and these have been long and extensively wrought. Auchenbowie and Plean are wrought by the proprietors. Bannockburn and Greenyards are held in lease by the same company. The people employed at these works are nearly 400. Of these there are usually 180 colliers, at 16s. per week, and in general they work only ten days in the fortnight. There are from 70 to 80 labourers, at from 10s. to 12s. per week, excepting those who are placed in situations of trust and confidence, and to whom higher wages are allotted. There are upwards of 80 boys and girls, whose wages, according to their age and capacity, vary from 9d. to 2s. per day. The women are rather above 60 in number, and their wages from 1s. to 1s. 6d. per day. The average wage stated above is what a good collier can make, as they are paid at a certain rate, according to the quantity of coals they produce. Nothing is charged for their coals, only they must hew them themselves. Houses and gardens also are in general provided for them, for which a very moderate rent is demanded.

The quantity of coal produced at all the different works is little, if any thing, short of sixty thousand tons.

Fisheries.—Trout and perch are found in Loch Coulter, and in the different streams of the parish; but the only fisheries de-

serving notice are on the Forth. These in general are either let to people in Stirling, or so connected with that belonging to the town of Stirling, that the account of them falls under the statistics of that parish.

Manufactures.—The manufacture of carpets and tartans has for many years been carried on to a great extent in this parish. The largest establishments are at Bannockburn; but in other parts of the parish, particularly at Cambusbaron, active and enterprising manufacturers are to be found. The weavers mostly reside in villages, though a few of them are still to be met with in the country. Including all the different branches,—spinning, dyeing, weaving, &c., there are upwards of 1500 persons employed in this manufacture. When the trade is in a prosperous state, the number of men may be stated at rather more than 830, whose weekly wages are from 10s. to 12s.; women nearly 500, and their weekly wages are from 6s. to 7s.; boys and girls upwards of 170, from 3s. to 4s. per week. The annual average value of goods manufactured may be estimated at L. 130,000.

Tan-Works.—There are three tan-works in the parish, two in St Ninians and one in Bannockburn. In these, 48 workmen are employed, of whom a few are apprentices. Twenty-three are tanners, and one skinner, whose wages average 12s. weekly; and 24 curriers, at 14s. weekly. They are, in general, more healthy than any other class of tradesmen. The value of the goods tanned may be stated at L. 16,000, and the goods that are curried at L. 12,000, of which above one-third are foreign hides, and skins imported in the hair; and the other two-thirds are the produce of the country around.

Nailers.—There are 200 nailers. They make from 1000 to 1200 nails in the day. Their working hours are long, and their wages small: 8s. or 9s. per week.

Brick and Tile-Work.—The only brick and tile-work in this parish is at Throsk, at which 26 men are employed: wages, 16s. and 11s. per week.

Distilleries.—Not many years ago there were six distilleries in this parish. At present we have only one, at Chartreshall. From the 11th of October 1839, to 11th October 1840, they consumed 23,490 bushels of barley. Formerly, there were a number of brewers in St Ninians, now we have only one, nor does he carry on business to a great extent.

Malt is made at St Ninians, Bannockburn, and Sauchenford. The yearly average quantity is 28,980 bushels.

V.—PAROCHIAL ECONOMY.

Market-Town.—There is no market-town in the parish. Stirling, distant about one mile from the village and parish church of St Ninians, is the market-town of the district; but many of the agriculturists in the eastern parts of the parish attend the weekly market of Falkirk; and the graziers frequently repair both to Edinburgh and Glasgow.

Villages.—Besides a considerable portion of the suburbs of Stirling, which is in this parish, we have the village of St Ninians, containing, according to the census of 1841, 1480 inhabitants. The chief trades carried on in it are nail-making and tanning of leather, with the manufacture of tartans and shawls to a less extent. Bannockburn, 1987 inhabitants, chiefly engaged in the manufacture of carpets, tartans, and shawls. This village has increased rapidly, within the last thirty or forty years. Cambusbaron, 428 inhabitants; trade, wool-spinning, tartan and shawl manufactures.

Means of Communication.—The villages of St Ninians and Bannockburn enjoy each the benefit of a receiving post-office; but the delivery, in both cases, is from the post-office in Stirling, by means of a daily runner. The great post road from Edinburgh to the north by Stirling, traverses the parish from its eastern boundary to its confines with Stirling, a distance of about six miles; whilst the Glasgow post-road to the same town passes through the parish from south to north, a distance of about four miles, joining the Edinburgh road at the village of St Ninians. The coaches from the north to Glasgow, by the way of Stirling, and from Stirling both to Glasgow and Edinburgh, all pass through this parish by the roads just described. The road from Dunbarton to the ferry near Alloa runs through this parish, for about twelve miles; and there is also an excellent road from Carron-bridge to Randiesford, which, to the inhabitants in the higher parts of the parish, opens up the way both to Glasgow and Edinburgh. There are numerous small bridges, but none of them deserving particular notice. A project is in agitation for a branch railway from Stirling, to join the Edinburgh and Glasgow railway near Falkirk, which, when executed, will traverse the eastern part of this parish. Almost all the lands in the parish are enclosed, the fences in the carses and low grounds consisting of thorn-hedges, and those in the uplands

of dry stone dikes,—a small part of the higher moors are unenclosed.

Ecclesiastical State.—The following report was given in by the kirk session to the Religious Instruction Commissioners in 1837 : —“ The parish church was built in 1750. It contains upwards of 1500 sittings, and has never been either altered or enlarged. The whole church, with the exception of a seat for the minister, and another for the elders, is divided among the heritors ; and no seats are allotted, either for the poor, or for the inhabitants of the villages. More than 200 seats are behind the pulpit, in which it is difficult either to see or hear ; while several of the best, belonging to non-resident heritors, are seldom if ever occupied. The real value of the church is thus greatly lessened to the parishioners ; many of whom have to pay for their seats, and more would willingly do so, could they find suitable accommodation for themselves and families.”

From an early period it was found that one church and one minister were altogether inadequate for a parish so populous and extensive. An assistant minister, a place of worship at Buckieburn, and an abortive attempt for a new erection at Sauchenford,—so far as appears from the records,—were the only exertions made to remedy the evil, during the whole of the eighteenth century. There was a chapel at Buckieburn in 1697, which seems afterwards to have been pulled down. A contention arose among the people in the muirlands, whether their place of worship should be erected at Buckieburn or at Kirk o' Muir ; and, during this time, the minister and assistant preached in the open air. At last, Buckieburn was fixed upon, and the present chapel was erected about the middle of the last century. It was thoroughly repaired and re-seated about ten years ago. Much obscurity hangs over the institution of the assistant. A regular agreement for the support of one is entered into in Mr Gibson's time ; but, instead of a new institution, they speak of an assistant as having been of old established in the parish. In 1746, Mr Mackie raised a considerable sum in London, as a fund from which the assistant should be paid. The heritors got possession of this as poor's money in 1780 ; and, in 1785, the assistant was put upon the teinds of the parish.

A new church, containing 900 sittings, has been recently erected in Bannockburn, to which a minister has been ordained, and a territory or *quoad sacra* parish, containing 3176 inhabitants, has been set apart. He has a bond for L.80 ; but it is understood

that the managers do not limit themselves to that sum. The stipend is raised from the seat-rents, which are moderate, and by the collections at the church doors.

To the eastward of Bu-burn another new church has also been erected at Plean, to which a *quoad sacra* parish, containing 885 inhabitants, has been allotted. A minister has been ordained, who has a bond for L. 80; but, as he is in the receipt of a liberal salary as chaplain of Plean Hospital, he makes no demand upon his people. The collections at the church door are expended, partly in defraying expenses, and partly in relieving the poor.

Both these churches are well attended, and are of great benefit to the parish,—Ba-burn, by accommodating the dense population in its immediate vicinity, and Plean, in making provision for an extensive rural district, remote from any other place of worship. Still, as was stated in the report already alluded to, “the relief afforded is but partial either as to population or extent. The population of St Ninians is still upwards of 6000; and as the new erection at Ba-burn is only one mile and a quarter from the parish church—as many of the inhabitants of the new parish are within a mile of St Ninians, and very few of them more than two miles distant, it can do little in removing the inconvenience arising from the farthest boundary being more than ten miles from either place of worship.” Plean is between four and five miles from St Ninians, and the nearest of its parishioners are three miles from the parish church; but it is in the same direction with Ba-burn; and whilst ample provision has been made for this district, the lower carses and the muirlands are as destitute as they were before. Buckieburn is five miles to the south-west, and the parish extends as far down the carses in the opposite direction. Between St Ninians and Airth there are eight miles of highly cultivated carse lands, thickly inhabited, in which no place of worship is to be found. At Damhead of Thuk, a mile from our north-eastern boundary, and midway between St Ninians and Airth, a site has been fixed upon, and money subscribed, for the erection of a school-house and preaching station. Within a mile and a half of this place, there are above 500 souls, all of whom are more than two, and many of them three and four miles distant from any church or meeting-house. Were public worship regularly maintained at Damhead, and in the muirlands,—and at small expense this might be accomplished,—the parish of St Ninians might still be accounted too populous and extensive; but

much would be done to remedy these evils, and the complaint so frequent, and so just, of distance from any place of worship, would in a great measure be removed.

The manse was built in 1809, and, though somewhat damp, is rather a comfortable house. The glebe contains four acres of arable land, which, along with the grass glebe, yields L. 30 of annual rent. The stipend is nineteen chalders, one-half meal and one-half barley. There is an assistant minister, for whom provision has been made out of the teinds, to the amount of L. 50 per annum, which, by voluntary subscription through the parish, is raised to above L. 100 a year.

In 1788, the right of patronage was purchased by the parish, the price was upwards of L. 600. Every head of a family in full communion with the establishment has a right to vote in the election of a minister. The right of presentation is now lodged with a committee of nine, consisting of three heritors, three elders, three heads of families. The members of this committee are chosen by the people, and hold their places for life, if they continue in full communion with the Establishment. The committee is obliged to present, in due time, whatever candidate is recommended by the majority of votes.

There is in St Ninians a Relief meeting-house, containing upwards of 1300 sittings, the minister of which has L. 190 of stipend; a manse and garden with one acre of ground. There is another meeting-house in Ba-burn connected with the United Secession; the minister has L. 80 of stipend.

At all these places of worship, divine service is generally well attended, and a number of the parishioners, besides, are connected with the different congregations in Stirling. By a census taken by the kirk-session in 1834, it appears that 4428 individuals belonged to the Established Church, and that 4839 were connected with other denominations. Since that time, those connected with the Establishment have considerably increased. Previous to the new erections the number of communicants in the Establishment was about 1200. Still, nearly 1000 belong to the parish church, and as there are a goodly number at Plean, and a much larger number at Ba-burn, it is evident that a very considerable increase, both of hearers and communicants, has taken place since these churches were opened.

The new church at Ba-burn was opened in October 1838—that of Plean in March 1839; but at Plean, they had regular worship on Sabbath in a large room, at the cottage, for some time before.

Since the year 1774, there has been a regular assessment in the parish, and the collections at the church door have, of course, been trifling. Taking the two years before Bannockburn and Plean were separated from us, the collections were,

	May.		For the poor.			For religious purposes.	
	1837, -		L. 64 7 4	-		1837, -	L. 34 19 10
	1838, -		63 13 7	-		1838, -	12 12 3
The two years since they left us, .	1839, -		55 16 7	-		1839, -	47 0 0
	1840, -		56 1 6	-		1840, -	63 5 0

Education.—There are 19 schools in the parish, of which one is parochial, with the legal accommodations; and three others are slenderly endowed, one by a mortification, and the other two by the bounty of a benevolent lady. The branches generally taught are reading, writing, and accounts. Besides these branches, Latin, Greek, French, geography, and mathematics, are taught in the parish school, where an assistant is kept. The salary is the maximum, and the school fees vary from 2s. 6d. to 7s. 6d. There are two or three places, in the remote parts of the parish, in great need of schools. The people are too few, and too poor, either to build a school-house or to support a teacher. Most parents are zealous for the education of their children; but a spirit of indifference is certainly increasing. This will be ascribed by some to the number of strangers who come amongst us to our public works—by others to the very low wages of many workmen, sinking their spirits, and rendering them careless about their children. But perhaps the most prolific source of the evil is the wages which the children at an early period can gain,—thus relieving the parents of their support, and rendering them too soon independent. The children of miners, nailers, and spinners, are most exposed to this evil, nor can it be repaired by their attendance either at week-day evening or Sabbath evening schools.

Libraries.—There are several libraries in the parish, some of them containing about 500 volumes. Those connected with particular congregations consist generally of religious publications. There are others which admit works of general literature.

Charitable Institutions.—The late Francis Simpson, Esq. of East Plean, who died March 1831, nominated certain trustees, to whom he left, in lands and money, between L. 2000 and L. 3000 of annual income, for the benefit of indigent old men; sailors and soldiers to have a preference. The funds have already been increased, and will, ere long, be still farther augmented, by certain

annuities and liferents, which fall to the institution. Mr Simpson had built a large and comfortable cottage, and the trustees, by a suitable addition, at once completed the plan, and greatly increased the accommodation. In this asylum, there are at present thirty inmates, who are comfortably lodged, fed, and clothed, and to each of whom a little pocket-money also is allowed. Nor are their spiritual interests neglected. The trustees gave the ground on which the new church of Plean is built, and contributed most liberally to its erection. A portion of it is allotted for the accommodation of the old men. The Scriptures are read, and prayers offered up morning and evening in the asylum, whilst the chaplain is the ordained minister of the church, and takes the pastoral superintendence of an extensive surrounding district.

Poor and Parochial Funds.—The number of paupers on the regular poor's roll of the parish may average 140,—and the allowance to each varies from 2s. to 7s. 6d. per month, according to the degree of poverty of the parties. In addition to this, relief, to a considerable extent, both to those on the roll and others, is granted by the kirk-session out of funds at their disposal. The legal parochial assessment averages about L. 250 per annum, and mortified funds in the hands of the kirk-session yield L. 120 a-year of interest. There are very few cases in which the poor manifest a disposition to refrain from seeking parochial relief; nor do they appear to consider it as degrading. Sometimes a distinction is made between what is collected at the church door and what is contributed by the heritors. No reluctance is ever expressed at receiving from the heritors,—the feeling seems to be that they give too little.

About fifty years ago, William Werdie, Esq. of Cambusbarron, left L. 1120 to the kirk-session of St Ninians, the interest of which they are, on the 4th day of October, “to divide among the poorest inhabitants of St Ninians, not being common beggars.” This has been thought to operate injuriously to the town; and a wish has often been expressed, that it were extended to the whole parish.

A few years before his death, Mr Simpson, the founder of Plean Asylum, at the desire of his son, gave L. 500 to the kirk-session of St Ninians, the interest of which they are requested “so to divide among the poor as not to relieve the heritors from their bounden duty of supporting them.”

Mr Greenock of Whitehouse left L. 500 to the kirk-session;

L.10 of the interest of which is to be given to the schoolmaster of Cambusbarron. The rest of the interest is at the disposal of the session for pious uses; and it is generally expended in educating orphans or children, whose parents are either unable or unwilling to pay for their instruction, and in supplying them with Bibles and Testaments.

The late Mr M'Gibbon of Greenyards left L. 200; and Mrs Brotherstone of Touch, L. 50, to the poor, without any direction or restriction as to the mode in which it was to be employed.

Fairs.—An annual fair for cattle, held in June at Broxbrae, part of the field of Bannockburn, is fast sinking into insignificance. The annual fair held at the east end of Newmarket, in the neighbourhood of Bannockburn, is on the contrary rising into importance;—a large number of cattle, especially milk cows, and a large number of horses, are exposed for sale. This market is attended by dealers from Edinburgh, Glasgow, and all the country around.

Ale-houses.—We have few places in the parish deserving the name of inns, but our ale-houses and spirit shops are by far too numerous; and they are very injurious, both to the morals and temporal comfort of the people. To them may be traced a large portion of the crime, poverty, ignorance, and misery of the working classes of society.

Fuel.—Coal is generally used in the lower parts of the parish for fuel; and along with this, a portion of peat is frequently made use of in the uplands. The coals are obtained at the different coal-works in our own neighbourhood.

June 1841.

ERRATA.

- Page 317, line 3 from bottom, insert after number, "the sums paid by."
 318, 13, *for* Auchintowie *read* Auchinbowie.
 318, 12, *for* Hospital *read* Hospitals.
 335, 32, *for* Thuk *read* Throok.

PARISH OF LARBERT.*

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. JOHN BONAR, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THE name Larbert was formerly written Lairbert scheills, Laithbert scheills, and Lethbert scheills,—which signifies the *scheills* or huts of the man named Lairbert or Laithbert. This parish of Larbert is united *quoad sacra* to the parish of Dunipace. At present, we speak of Larbert parish proper, the form of which is nearly elliptical,—the measures of the transverse and conjugate axis being nearly 3 and $2\frac{1}{2}$ miles; while the superficial extent is about $4\frac{1}{2}$ square miles, or about 2700 acres.

Boundaries.—The river Carron is the boundary on the S. and S.S. E. for a distance of $2\frac{1}{2}$ miles. The parish of Dunipace bounds the west and north-west, to a distance of $2\frac{1}{2}$ miles; on the north, the little river, the Pow of Airth, pronounced Poo. † To a distance of $1\frac{1}{2}$ mile on the north-east and south-east, the parishes of Airth and Bothkennar form the marches.

Topographical Appearances and Soil.—The parish slopes gradually from south-west to north-east. The mansion-house of Larbert, the most elevated point of the parish, and probably about 100 feet above the sea, is situated on an eminence which descends abruptly to the Carron, and more gradually towards the east for 500 yards, when the great body of the land of the parish becomes a table slightly inclined to the east, terminating in the lower or eastern part, in a more decided declivity on the estates of Kinnaird and Carron Hall. From all parts of the parish, the view is beautiful and commanding. It comprehends that

* Drawn up by Lieut.-Col. Dundas and W. A. Cadell, Esq.

† The word *Poo* signifies a sluggish stream. It is derived from the same root as the English word pool, and the Latin *palus*. The Poo has a great part of its course in the flat ground of the carse, and consequently is a slow running stream. Powis, two miles north of Larbert, and Powis, two miles east of Stirling, signify Poo House, i. e. the house near the Poo.

part of the river Forth which extends from near Stirling as far as Queensferry; on the south and east, the rich carses of Bothkennar, Falkirk, and Borrowstowness, containing the opulent towns of Falkirk and Grangemouth, with numerous thriving villages. The Carron Iron-works and many other works are finely contrasted with the prospect to the west of the beautiful range of the Ochills,* deeply indented by ravines,—thus presenting so many faces to be dimpled by the shadows of the passing clouds.

Climate.—The climate of Larbert is a mean between that of Edinburgh and Glasgow, from which cities it is nearly equidistant. The prevailing wind, as may be seen by the bent of the trees, is from the south-west; but it is not laden with so much rain as near Glasgow, while the rage of the east wind is somewhat subdued, as compared with Edinburgh. An illustration of this fact occurs at the time of writing this Account. The continued gales from the east, accompanied by snow, have impeded all agricultural operations in the neighbourhood of Edinburgh,—whilst in Larbert parish, the sowing of beans has been long completed, nearly all the oats are in the ground, and the land is cloven, and a dry bed is ready for the reception of the barley. This is, however, an extreme case; but as it occurred under our own inspection, and at so opportune a moment, it is recorded. Five days later, a heavy fall of snow covered Larbert to the depth of three or four inches; before noon, we were in Edinburgh, where no snow had fallen. It soon disappeared at Larbert.

It appears, however, that the climate of Larbert is not so mild as the climate of Edinburgh and the climate of Greenock, being more inland than these two places, *i. e.* the mean temperature of the winter months is probably somewhat colder at Larbert than the mean temperature of the winter months at Edinburgh or at Greenock; and this is shown by the growth of plants which require a mild temperature. For instance, the *laurustinus*, (*Viburnum tinus*, Lin.), a native of the country near Rome, &c. most commonly supports the winter's cold at Edinburgh and Greenock,

* The Ochills are composed of porphyritic rocks of the trap formation. Benclach, which is the highest summit of the ridge, is situated above the parish town of Alva, and is about 2000 feet above the level of the sea. The trigonometrical survey of Britain, conducted by the Board of Ordnance, had a station on the summit of Benclach about 1816, and one of the geometers of the detachment engraved and published a view of the whole circle of the horizon seen from Benclach, forming a panorama of the hills seen from that station.

whereas this shrub is frequently killed by the winter's cold at LARBERT, and I think also at Glasgow.

Harbours, River, and small Streams.—The tide rises in the Carron, as high as the Carron Iron-works, i. e. the surface of high water is nearly on a level with the lowest point of the water-wheels. The village of Carronshore (formerly Quarole shore) was a port of some little consequence, rising on the ruin of the harbour of Airth, as it has declined under the more favourably situate Grangemouth. Carronshore is still employed by the Carron Company, for the landing lime and iron-stone; and there is a dry dock used by the same company; a double-way iron rail-road connects it with the Carron Iron-works. The river is capable of bearing vessels of 150 tons burthen as high as Carronshore, and even up to the iron-works at spring-tides; but the winding of the river makes the operation of tracking tedious and uncertain. The deposit on the banks is a fat black loam, and sea-dikes are maintained to protect the low land. These are frequently injured at some of the acute windings of the stream, when the spring-tide is accompanied by a gale from the north wind. Above the Carron Iron-works, the bed of the river is rocky, showing sections of the strata of sandstone belonging to the coal-field, covered in many places by gray gravel which has been borne down by the spates. Salmon formerly abounded in the Carron, but that valuable article of food has been banished by the Carron works and other works, which have dammed up the water, and diverted the stream from its natural course, and thereby prevented the salmon from going up the river to spawn. A small stream, the Chapelburn, rising in the centre of the parish, after a run of about a mile and a-half, falls into the Carron, above Carronshore. Even this streamlet is forced into the service of trade, and turns two mills in its course. The small part of the Pow of Airth, which forms, for a short distance, one of the boundaries of the parish, is winding and sluggish. Although not exceeding fourteen feet in breadth, it is only fordable after a long course of dry weather.

The perennial springs in the parish are naturally good, but the surface springs, and those near the surface, have been in many places cut off, in the lower part of the parish, by the coal-workings. There can be little doubt, that a supply of water might be obtained by boring below the floor of the deepest pits, when water might be found, whose spring-heads lie in the neighbouring hills.

Geology—Alluvial Deposit.—The Carron, from Dunipace to Dorrator and Stenhouse, runs in a flattish haugh, which varies in breadth in different places. This haugh is bounded on each side by sloping banks of sand. The inclination of these banks is various. The top of the banks near the Carron Iron-works is about 75 feet above the level of the sea. From the top of the bank, the surface of the ground extends, in some places nearly level, in others at different angles of elevation, to the low hills which bound the valley. These banks are the section, or, in other words, the face of the alluvial deposit which, on the left bank of the river, extends back to the sandstone heights of the Torwood. In some parts of the Torwood, the sandstone is at the surface and bare. The sandstone is also bare and comes to-day in some parts of the bed of the river, as at Larbert bridge. This alluvial deposit, of which the haugh is an excavation, was probably formed in the sea, at a remote period, anterior to all historical record; the land, as several geologists maintain, having been afterwards heaved up to its present height, by the action of the melted matter in the interior of the globe. Such elevations of the land in some cases happen very slowly and gradually, as the elevation of the land of Sweden on the shores of the Baltic, which is now observed to be going on. That an elevation of the land has taken place in Britain, at a period subsequent to the deposition of alluvium, is inferred from the ancient sea-beaches or sea-strands, marked by oyster and other shells, which are found 30 or 40 feet, or more, above the level of the sea at many places of the coast.

After the sand and other alluvial matter was deposited by the sea, forming an alluvial bank, part of it has been carried away by the stream of the river and the tides, so as to form the haugh of the Carron, and through this haugh the river now runs. The river, in the course of ages, has gradually changed its course to different parts of the haugh, according to the various obstacles which the stream met with. At Dunipace, the river has worn away much of the alluvial deposit, so that the haugh at that place is a pretty extensive piece of level ground. In this piece of level ground, the river has left two insulated mounts, which are part of the alluvial deposit.

Sand.—In some of the sandy parts of the alluvial deposit, the sand is in fine grains without admixture of small stones. This fine sand is employed for sand-moulding at the Carron Iron-works. Other parts of the alluvial deposit consist of coarser sand, of small

gravel, of mixtures of clay and sand called till, and in some places of clay.

Boulders.—Boulders, *i. e.* large stones rounded by attrition in water, are found, but not in great number. Most of them are of rocks belonging to the trap formation, fragments probably of the rocks of the adjacent Kilsyth hills, in which hills the Carron has its source. There occur a few quartzose boulders from primitive schistose rocks, but these are much fewer in number than the boulders of trap formation. Near Stenhouse, Carronhall, and Kinnaird, the alluvial banks of sand lie upon the extensive alluvial deposit of clay, of which the carse of Bothkennar and of Falkirk consists. This deposit of clay is of considerable depth in some places, and lies upon coal measures, the coal of which is worked in different places. A few feet under the surface of the ground in the carse, is found a stratum of shells of oyster, mussel, and other species, similar to the species of shells found in the adjacent seas.

At Stenhouse, Carronhall, and Kinnaird, which overlook the carse, the aspect of the alluvial banks is towards the Frith of Forth; and from the situation of these banks it may be conjectured, that they were formerly the shore of the frith, at a time when the flat surface of the carse was covered by the sea, and when the haugh of the Carron was a bay, estuary, or tide-river.

Sandstone and Coal-measures.—Under the whole of the alluvial deposit is sandstone and the accompanying coal-measures; and in these coal-measures, several valuable seams of coal are worked at Carronhall and Kinnaird. The coal-measures also contain strata of balls of clay ironstone, which are worked. These strata of ironstone contain impressions of the trunks and stalks of various fossil plants of extinct species, amongst which are found several of the species described in the fossil flora of Brongniart, and in that of Lindley and Hutton; amongst which, are plants analogous to the tree-fern of the West Indies and to other tropical species, and which, together with the other plants of which the remains form the coal seams, grew, it would appear, at or near this point of the earth's surface, at a remote geological period, before the globe had cooled down to its present temperature, and when the temperature at this place was as warm as it is now within the tropics.

It was the abundance of coal and ironstone in the adjacent country which, in 1766, induced Messrs Roebuck, Garbet, and Cadells, the original proprietors of the Carron Company, to establish the extensive iron-smelting works of that Company in this parish.

Coal-Measures.—The whole of the eastern part of the parish is well stored with coal. Five seams have been discovered, and more or less worked. The lowest of these seams crops out in the western part of the Kinnaird and Carron Hall properties. The dip is usually to the north-east, and the coal field is intersected by several dikes; one large one runs through whole fields.

The following is a list of the seams of coal and stone, as they occur. Under from 6 to 16 feet of slate clay, called in the country *Blaes*, (probably from its colour,) and a post of sandstone rock, lies the *1st*, two feet coal, about 2 feet in thickness. This seam is not valuable in itself, but has frequently been wrought on account of fire clay of excellent quality, which lies near it. Passing through nine fathoms of different stone metals, and a white free sandstone above the coal, is, *2d*, the crow coal, of three feet in thickness, of the sort named cubical, a valuable, clear burning, household coal. Again, nine fathoms of mixed metals occur, and under a strong freestone is, *3d*, the main coal, of three feet two inches thickness. The upper part of this seam is fine splint. The lower part is strong cubical coal mixed with ribs of splint. Fourteen fathoms lower, is *4th*, the Cox road coal; and *5th*, the lower Cox road, at a farther depth of ten feet. But these two seams are very irregular. In some places, the two are found distinct, and of a thickness of from eighteen to thirty inches each. In other places, one of the seams is lost. Above the higher seam of Cox road, some ball-ironstone of excellent quality is found. The *3d*, or main coal, is well adapted for cooking, as is one of the Cox road seams, although it is of less value, from its being frequently intersected by horizontal lamina of very hard sandstone. This coal has been worked from the crop from time immemorial, but it was not till the establishment of Carron Iron-works that it was worked from the dip.

The first steam-engine on this coal-field was erected by Mr Dundas of Carron Hall, in the year 1760.* The collieries of Carron Hall and Kinnaird are now in the hands of the Carron Company, who employ about 150 mining colliers.

Sandstone.—A fine freestone, i. e. sandstone, was formerly obtained at Carron Hall, situated considerably above the highest

* The earliest steam-engine I have heard of in this part of the country, was one for pumping water from the colliery of Elphinston, in the parish of Airth. This steam-engine was erected, probably about 1745 or 1750. The cylinder and other parts were of brass or bronze. Cast iron had not then come unto use. About 100 years have elapsed since that time, and cast-iron, during that period, has gradually come to be used for a very great variety of purposes.

seam of coal. This quarry has been filled up. The stone found under the seams of coal, that is, in the western part of the parish, is of a very inferior nature. The stone for building is therefore brought from a considerable distance.

Ironstone.—Several strata of ironstone are found in the coal-measures in this parish, and in the adjacent country; and the ironstone from these strata is wrought and smelted at the Carron Iron-works. The ironstone of the coal-measures is arranged by some chemists under the name of amorphous lithoidal carbonate of iron.

This kind of ironstone has long been smelted with coke in Staffordshire, Shropshire, and other parts of England and Wales, and at Carron, in this parish, since 1760. But the iron in other parts of Europe is obtained by smelting other kinds of iron ore, and not from the ironstones of the coal measures.

The smelting of the ironstone of the coal-measures has been only recently introduced into France, namely, about 1816, when a blast-furnace, after the model of the English ones, was erected at St Etienne, by a company of proprietors there, to smelt in the English way the ironstone which is found in the coal-measures at St Etienne. English blast-furnaces, however, were erected at Creuzot, 12 miles south of Autun, by the brother of the great English iron-master, John Wilkinson, about 1780; but they did not use the ironstone of the coal-measures.

Soil.—The soil in the east end of the parish is, for the most part, good. It may be rated at a rent of from six to eight bushels of wheat per acre. A belt of above a mile in breadth crosses the centre of the parish, nearly from north to south. This is of a light sandy nature, with a subsoil of till, a most untoward association, white sand and till. The land again improves to the westward.

Draining of Arable Land.—The modern improved method of draining is now, in 1837, 1838, 1839, 1840, &c. much practised in the parish, and all the country round. The drain is made as deep as the declivity to carry off the water, will allow. One of these drains is made in each furrow of the ploughed field. A line of tiles is placed at the bottom of the drain to form the channel, in which the water runs. About 1837, a considerable tile-work for making drain tiles was established by Mr Stirling of Glenberrie, on the beds of clay in the low ground near the Poo. Two or three years after, another tile-work for making drain tiles was established near the same place by Mr Bauchop.

Mosses in Pasture.—That species of moss, called by botanists *Hypnum squarrosam*, and some other species of *Hypnum*, all which mosses are named *fog* in this part of the country, are very frequent in our pastures. They abound on dry sandy soils, as well as on moist ground. These mosses are not nutritive to cattle. It is said that black-cattle and sheep, when they have taken a mouthful of grass mixed with moss, reject the moss, and throw it out of their mouth, and swallow the grass and other nutritious plants only. The seeds of these hypna are very small grains, which have the appearance of a fine dust or powder. These seeds are shed and widely diffused by the wind. They fall everywhere, and spring up into mosses in every field.

The mosses increase in quantity as the pasture gets older, and after some years have elapsed, the quantity of moss in the pasture is greater in weight than the quantity of grasses and other nutritive plants. The pasture now contains little grass, and is unfit for feeding cattle advantageously.

To destroy the moss, and bring the field again into good pasture, the ground must be ploughed and subjected to a rotation of crops for five or six years, and at the end of that time again laid down in grass. It thus happens, that in our climate old pastures are unfit for feeding cattle advantageously, being overgrown with mosses, and containing little grass, whilst in different parts of England, some degrees farther south than our parallel, the warmth, and other circumstances, being less favourable to the propagation of mosses, and more favourable to the growth of grass, an old pasture is composed of spontaneous grasses and other nutritive plants, affording abundant food for cattle. With us, the spontaneous plants in an old pasture are chiefly mosses, and the pasture affords little food. There, the spontaneous plants are grasses and other nutritive species, affording abundance of food. In Holland, also, in parallels $3\frac{1}{2}$ and 4 degrees south of our parallel of $56^{\circ} 1'$, the old pastures give abundance of food fit for fattening cattle.

Forest Trees.—The district, of which Larbert forms a part, is not considered to be highly favourable to the growth of timber. On the table-land of the parish, there is a young wood of some 40 acres, and some smaller plantations. The fir seldom attains sixty years on that soil, and there are no trees of a large size. In the lower part of the parish, are some trees of a very large size, in the Park of Kinnaird. Near the House, are some oaks of a large girth, and a fine avenue of limes. Near the House of Carron

Hall, stands a Wych elm, of singular beauty, which, at $5\frac{1}{2}$ feet from the ground, girths 166 inches, or nearly 14 feet. There are also several Huntingdon willows* of nearly 12 feet girth. The timber of the Huntingdon willow is of great value, combining toughness with lightness; and, in the deep soil of the Carse, the growth is so rapid, that a willow having been cut down in the year 1806, two shoots were allowed to remain till the spring of 1821. The remaining tree now girths 70 inches, and contains at least 45 feet of timber. In the light soil of the upper part of the parish, the Huntingdon willow does not grow to so great a size as in the Carse. We subjoin a note of the growth of six trees, measured at different periods, to ascertain the rate of increase.

Note of Trees growing at Carron Hall. Girths.

Measurement of at $5\frac{1}{2}$ feet from the ground.	1815.	1821.	1822.	1826.	1835.
Bent oak, - - -	53 in.	$56\frac{1}{2}$ in.	57 in.	60 in.	$67\frac{1}{2}$ in.
Wide-topped oak, - - -	48	$53\frac{1}{2}$	54	$56\frac{1}{2}$	$64\frac{1}{2}$
Clear ash, - - -	41	46	47	50	$56\frac{1}{2}$
Beech, No. 1, - - -	56	65	66	$69\frac{1}{2}$	$76\frac{1}{2}$
Beech, No. 2, - - -	50	54	$54\frac{1}{2}$	$55\frac{1}{2}$	60
Plane or sycamore, <i>Acer pseudo-platanus</i> of Linné, .			...	118	120

It is worthy of remark, that the two beeches stand within 20 feet of each other, and that No. 1 continues to thrive, whilst its neighbour has a less healthy appearance.

Bishop Watson says, as soon as a tree is worth a guinea, the most profitable plan is to cut it down. This we may suppose to have been an oak of seven to eight feet, solid measure; and such the Bishop, who took great pleasure in his woods, deemed ripe for the axe.

The oak in this climate does not grow to the size which it attains in Yorkshire, Nottinghamshire, Berkshire, Hampshire, and other parts of England. There was, however, 50 years ago, a remarkable oak in this neighbourhood on the lands of Blairs, two miles north of Larbert. It was called Wallace's tree. When I saw it about 1794, there remained only a part of the outer shell and

* The Huntingdon willow, *Salix alba* of Linnæus, called in some parts of England the Leicestershire willow. There is another species of tree willow in this part of the country, which grows to a considerable size, but does not afford such straight well-formed timber as the Huntingdon willow. The Huntingdon willow is propagated by cuttings, which are poles of about seven feet in length. A hole, of a foot or eighteen inches in depth, and just wide enough to admit the pole, is made by means of a cylindrical iron bar, or by a large kitchen poker, which is rammed into the ground, so as to form a hole, and into the hole the thick end of the pole is inserted, and is fixed by pressing inwards the sides of the hole.

a branch with a few green leaves on it. The tree had been long hollow. The capacity of the hollow might be such as to contain a man or two. As the time when Wallace lived was about 500 years before 1794, and the lifetime of a very old oak may be considered to be not above 500 years, it follows that the tree, if it existed in his time, must have been then very young, and therefore, it had not at that time formed a large and hollow trunk in which Wallace might conceal himself, as the popular story asserted that he did. The great hollow oak of 1790, if it was in existence in 1290, was then very young.

II.—CIVIL HISTORY.

Eminent Men.—The parish of Larbert can boast of the following men.

Robert Bruce of Kinnaird, whose memory must be ever dear to the Church of Scotland, for his bold and uncompromising defence of Presbyterianism against the encroachments of Popery, and forced Episcopal usurpation. Having made himself obnoxious to the Court, he was compelled to flee to England. He was afterwards banished to the country, and, residing at Kinnaird, he became the unpaid minister of Larbert parish, where his ministration was highly prized. He was esteemed over Scotland as a preacher of the truth, and after a life spent in the service of God, he expired at Kinnaird about the year 1632, aged seventy-two years. The tomb-stone placed over his grave, and inscribed to his memory, still exists in Larbert church-yard.

A descendant of this eminent minister of the church was James Bruce of Kinnaird, celebrated for his travels in Abyssinia.* He was in that country in 1769, and remained there four years. He is acknowledged to have been the first European who, in recent times, visited the source of the Abyssinian Nile.†

Mr Bruce, in his *Travels*, informed the public of lands known

* James Bruce was a descendant of the Rev. Robert Bruce in the fifth degree, I think; but I have not any note of the number of degrees. Mr Hay, of the family of Hay of Woodcockdale, in Linlithgowshire, married the heiress of Kinnaird. James Bruce was the eldest son of that marriage.

† The river of which Mr Bruce visited the source, is the Bahar el Azrek, the Nile of the Abyssinians, the Astapus of the Romans. It is not the principal branch of the Nile. The principal and considerably larger of the two branches which join to form the Nile, is the Bahar el Abiad, the White River, which rises in the Kumri mountains, and whose source has not yet (1838) been visited and described by Europeans.

The sources of the Bahar el Azrek, the Nile of the Abyssinians, were visited and described 150 years before Mr Bruce's time by Paiz, a Portuguese Jesuit missionary.

only by name. Many of the details were long considered to be the fruit of the author's invention ; but the testimony of subsequent travellers has proved the truth of Mr Bruce's assertions. He was born in 1730, and died at Kinnaird in 1794, at the age of sixty-four.

In the earlier part of his life, Mr Bruce was a wine-merchant in London, and married the daughter of a wine-merchant there. This lady died a few years after the marriage. After this, Mr Bruce was Consul at Algiers. He received about L. 10,000 from Government, as a compensation for the expense and time he had bestowed on his travels in Abyssinia. He was sufficiently careful of his fortune, and left it in good order. He kept his colliery in his own hands for some years, and superintended the management of it, and erected a large steam-engine for pumping the water from the workings.

Mr Bruce having lived a considerable time in the countries situated on the shores of the Mediterranean, became acquainted with a number of the languages spoken in these countries, and knew several, so as to speak them,—Arabic, and its derivative, Abyssinian, otherwise known by the names of Ethiopic and Amharic,* Coptic, Spanish, Portuguese, Italian, French, Latin, Greek. Some of these languages Mr Bruce probably spoke with tolerable fluency. It is very rare that any one ever acquires the use of a foreign language, so as to speak it like a native. In order to have a chance of succeeding in this, he must begin in his infancy to speak the language with natives, and must live with the natives in the country where the language is universally spoken. But if he continues this course long, the result is, that, in acquiring the idioms and correct articulation of the foreign sounds, he has forgotten and lost a good deal of his own mother tongue.†

Paiz's description is inserted in Kircher's *Cedipus Egyptiacus*. Paiz was with the King of Abyssinia and his army, and visited the sources in 1618. See Athanasii Kircheri *e societate Jesu Cedipus Egyptiacus*. Romæ, 1652.

* Habesch is the name which the inhabitants give to their country, and from this the Europeans have formed the name Abyssinia. The Amharic is the vernacular dialect of Ethiopic spoken in Abyssinia. The Abyssinians, it is believed, came anciently from the east coast of the Red Sea, and two-thirds of the words in the Abyssinian language are Arabic. The Abyssinian letters, however, are altogether different, and are read, as the European languages, from left to right, whilst the Arabic are read from right to left.

† Mithridates, King of Pontus, in ancient times, was famous for his ability in speaking several different languages. L'Abbate Mesofanti, librarian in the University of Bologna, in 1817, and afterwards one of the librarians of the Vatican, was celebrated as a linguist, and spoke fluently a number of languages, although he had never been out of the Pope's territory.

The line of Mr Bruce's travels did not lie in countries where he would have acquired a knowledge of languages of the Gothic class, such as German, nor of those of the Slavonic class, as Servian, Polish or Russian ; nor of Persian and the Indian tongues.

Mr Bruce used to relate, that when he was presented to the Pope Ganganelli, Clement XIV., his Holiness said, fortunate is the sovereign who has a subject like Mr Bruce, able to speak thirteen languages. Of these thirteen languages, however, it is probable there might be some of which Mr Bruce knew only a few words.

Mr Bruce lived in a respectable and hospitable style at Kinnaird. He repaired, improved, and modernized a little his old mansion-house, and built a room adjoining to it, in which he disposed his books and oriental manuscripts on one side, and on the other side, a collection of curiosities, consisting of corals, shells, and some showy minerals. Some rifles, Turkish sabres, and other arms from the Levant ; red feather cloaks and helmets from Otaheité ; some fragments of Egyptian antiquities ; some small antique bronzes, and Greek and Roman coins collected by Mr Bruce in the countries which border the Mediterranean.

He had the panels of the base of the book-cases ornamented with figures, painted in the style of the Herculaneum fresco figures by David Allan of Edinburgh, a meritorious artist of that time.

In this room was also seen a great old astronomical quadrant of brass, of two to three feet radius, a camel's load of itself, which Mr Bruce had carried with him over hill and dale to Abyssinia. A very clumsy instrument, when compared to the more portable modern mercurial horizon and sextant used by travellers for finding the latitude.

The portfolios in this room contained the works of an Italian draftsman whom Mr Bruce took with him in his travels. These works consisted of architectural drawings of the Roman triumphal arch at Tripoli, and of aqueducts and other ancient buildings, near the site of Carthage, on the north coast of Africa, and unpublished botanical drawings of Abyssinian plants.*

Mr Bruce was a keen sportsman, and used to go in the season to a place thirty miles off in the Highlands, on Loch Lubnaig,

* A brother of Mr Bruce's, who was in India in the medical service of the East India Company, also made a collection of botanical drawings of Indian plants, which were sold after his death, and are now, if I recollect right, in the collection of the learned botanist, the Vice-president of the Linnean Society, Aylmer Bourke Lambert, Esq.

called Ard Whillary, the shooting and fishing belonging to which he rented.

In an inclosure of a few acres at Kinnaird, he had some fallow-deer, and would show his skill as a marksman, by bringing down a fat buck with his rifle, when he intended to give a venison feast.

He had a pair of swans to ornament his pond, and the neighbours said he was wont to pass off his geese for swans too.

He was undoubtedly a wonderful boaster, and had no inclination to follow the precept of the moralist, "Let nothing be done through strife and vain glory."* Mr Bruce, on the contrary, was always striving to appear great and mighty, and claiming the palm due to superior ability.

With such a disposition to put himself forward, he necessarily excited the envy and malice of many.

Walcot, known by the name of Peter Pindar, published a satirical epistle to Mr Bruce. Mr Bruce used to speak of this, and said that a relation of his in London, who bore him some ill-will, had employed Walcot to write the satirical verses, and that the poet would not have published them of his own accord. Mr Bruce thus consoled himself with the opinion that the production was not *proprio motu* of Peter Pindar.

Mr Bruce was a tall stout man. In his youth, he was handsome; in the latter part of his life, he was corpulent and red-faced.

His manly appearance, and his bold and commanding manner, were suited to procure him the respect of the people amongst whom he travelled.

The uncle of Mr Bruce's wife was a native of this part of the country, and had acquired a large fortune of about half a million, as Commissary of the army in the German campaigns of the Duke of Cumberland, son of George II. in 1745, 1747, and 1757. The fortune and activity of this gentleman gave him considerable power and influence in the country. He and his connections were Whigs. But Mr Bruce was of a contrary persuasion in politics; he saw Government in a different point of view, and was adverse to the destructive revolutionary system of Robespierre, the Duke of Orleans, surnamed Egalité, and other malignant and sanguinary men who co-operated with them. This system had begun to work, and to be actively propagated in Europe not long before

* "Let nothing be done through strife or vain glory, but, in lowliness of mind, let each esteem other better than themselves,"—St Paul's Epistles. "Let another praise thee, and not thy own lips."—Proverbs of Solomon.

Mr Bruce's death. Mr Bruce was candidate for the place of Convener of the Commissioners of Supply of the County of Stirling; a place of honour, not of emolument. His opponent was a gentleman of the Whig party, who, if I recollect right, was elected.

A few years before his death, Mr Bruce's eye-sight became a little defective, so that he could not easily read by candle-light in the evening, and he said he had the intention of learning to play on some musical instrument, for the purpose of being able to pass his evenings with less exertion to his eyes.

One evening at Kinnaird, he fell down the stair, whilst he was handing a lady to her carriage. He remained in a state of insensibility ever after the fall, and died in the course of the next four-and-twenty hours. The fall was attributed to an apoplectic attack. He thus died in 1794, at the age of about 64, having lived a year longer than that period of seven times nine years, celebrated by the Platonists and old medical writers as the grand climacteric year. He was spared the pain of living to advanced old age, and had the good fortune to arrive at the end of life, before the time when disease and infirmities usually come on.

Mr Bruce was twice married, and by his second marriage to a daughter of Thomas Dundas of Fingask, he left a son and a daughter; and a descendant of his son continues to own the estate of Kinnaird, in this parish.

2. Major-General Thomas Dundas of Fingask, commanded the 80th or Edinburgh Volunteers during the American war, and was the personal friend of Marquis Cornwallis, under whom he served. General Dundas resigned the Lieutenant-governorship of Guernsey, to command a division in Sir Charles Grey's expedition against the French West India islands, having borne a most distinguished part in the capture of all the islands which were taken. General Dundas expired of a malignant fever, while in command of the Island of Guadaloupe. A monument was placed over his remains by the officers and soldiers of his division, which having been destroyed by the French General Victor Hugues, was restored by the garrison, when the island again fell into the hands of Great Britain. A cenotaph, by Bacon, was erected to the memory of General Dundas, by the British Parliament, in St Paul's Cathedral.

3. The following is an account of some of the persons engaged in the first establishment of the Carron Iron-works:—

The iron manufactory for smelting iron from the ironstone was established at Carron, in this parish, in the year 1760, by a company under the firm of Roebucks, Garbet, and Cadells. The original partners were, John Roebuck, Doctor of Medicine of Sheffield, and afterwards of Birmingham, and his two brothers, Thomas and Ebenezer Roebuck; Samuel Garbet, merchant, of Birmingham; William Cadell, Senior, merchant at Cockenzie, in East Lothian; William Cadell, Junior; and John Cadell.*

Dr John Roebuck and Samuel Garbet were men of activity and enterprise. They were acquainted with chemistry; and, before the Carron Company was formed, they had established a manufactory of sulphuric acid, otherwise called oil of vitriol, at Prestonpans, in East Lothian. Dr Roebuck was a partner of Mr Watt, in Mr Watt's first patent taken out in 1769, for the improvement of the steam-engine. Dr Roebuck had two-thirds of the patent. But the patent did not turn out a profitable concern during their co-partnership.

Some years after the works had been in activity, the celebrated engineer, Smeaton, was employed to reconstruct the blowing machines, and other parts of the machinery. He also formed the dam-dike across the Carron at Larbert, constructed on the principles of an arch, with the convex side directed up the river. By means of this dam, the water of the river is retained, and passes in a leyd,† or water-course, of a mile in length, to a reservoir of 30 acres at the works. From this reservoir the water falls upon the different water-wheels which work the blowing machines, the boring-mill, the forge-hammer, &c. The wheels are overshot. The fall 24 feet.

The Carron Company had formerly another reservoir of the water of the Carron, at Dunipace. This is now abandoned, the ground having been wanted for other purposes. More recently, viz. about 1836, the proprietors of water-wheels on the Carron, at their joint expense, formed a reservoir in the upper part of the river, on the Kilsyth ridge of hills, about ten miles west by north of Larbert. This reservoir is for the purpose of retaining the water in times of flood, and for giving it out, in times of drought.

William Cadell, Junior, was the manager of the Carron Iron-

* These names are taken from a feu-charter granted by the company in 1763.

† *Leyd* or *lade* pronounced *lead*, signifies in this part of the country, the water course, by which the water is conducted from the river to the mill wheel. *Water-leyding*, Dutch, signifies the water course of a mill.

works at their first foundation, and for some years after. He conducted the management with great industry and attention. After he had retired from the management, the works were managed by Charles Gascoigne.

Charles Gascoigne was the son-in-law of Samuel Garbet, one of the partners above-mentioned. Before he came to Carron, Charles Gascoigne was a drysalter, *i. e.* a wholesale dealer in drugs and chemical preparations in London. He was a man of good abilities, and was active in promoting the improvement of the works; but the establishment had not then become profitable, as it afterwards did.

Whilst Mr Gascoigne was manager of the Carron Iron-works, an offer was made him to enter into the service of the Empress Catherine II. of Russia, who wanted to have iron-works erected in her dominions, for the purpose of making cast-iron guns, cast-iron shot, and shells. This offer was made through the medium of the late Admiral Greig, a native of Inverkeithing, and at that time a distinguished admiral in the Russian service. When a man is tolerably at ease in his circumstances, he does not readily renounce his country, and become the liege-subject, the bondman, of another sovereign. He would think it degrading and dishonourable to take such a step. But Mr Gascoigne was in difficulties—he was not even with the world—his affairs were embarrassed and insolvent. Being thus disagreeably situated in his native country, Mr Gascoigne was in a fit disposition to quit it, and seize the opportunity presented to him of trying whether fortune would be more favourable to his projects in the dominions of the Czarina. He was a man of the world, able and enterprising; consequently, he accepted the offer, and went to Russia, taking with him, although contrary to law, several skilful workmen from Carron, who were able to erect and conduct the different parts and branches of an iron-work. By these means, he erected iron-works for the Russian Government at Petrozavodsky,* and afterwards for smelting iron by pit coal, at a place near the Black Sea, and the country of the Don Cosack. Charles Gascoigne was Knight of the order of St Wladimir, and had the rank of General in the Russian service. He died

* Petrozavodsky, a town of 7500 inhabitants, the capital of the government of Olo-nets, situated near the lake Onega; Latitude $61^{\circ} 48'$; 210 English miles north-east of St Petersburg, with which it has a communication, part of the way, by water-carriage. At this place the Russian government has iron smelting-furnaces, worked with charcoal of wood, an iron cannon-foundry, anchor-forges, and other works for the use of the navy and artillery. Some of these works were established by the Czar Peter I.

possessed of about L. 30,000, which he had made in Russia, but his heirs or creditors in this country did not realize nearly so great a sum, by reason of the fall in the exchange value of the ruble, and other circumstances. These iron-smelting-works and iron cannon-foundries of the Russian government are now, 1838, managed by Mr Wilson, who went out with Mr Gascoigne, and who has the rank of General in the Russian service.

Charles Baird, Knight of the Russian order of St Vladimir, who also went from Carron to Russia along with Mr Gascoigne, established and continues to carry on a large work for the manufacture of muskets, steam-engines, and other iron goods at Cronstadt, near Petersburg.

Joseph Stainton, a native of Cumberland, who had been for several years employed in the counting-house of the Carron Company, was appointed manager of the Carron Iron-works when Charles Gascoigne had left them. By a steady application to business and a scrupulous exactness in the execution of orders, as well as by attention to the quality of articles made at the works, he brought the affairs of the company into the thriving condition in which they now are.

Land-owners.—The heritors of the parish are,—1. Mrs Cum-
 ing Bruce; 2. Colonel Dundas; 3. Sir Michael Bruce, Bart.; 4.
 Mr S. Stirling; 5. Carron Company; 6. Sir Gilbert Stirling,
 Bart.; 7. Mrs Robertson; 8. Mr Forbes; 9. Mr W. A. Cadell.
 The two families of Bruce are descended from the family of
 Bruce of Airth, from which they were portioned off in the sixteenth
 century.*

Colonel Dundas represents the family of Dundas of Fingask,
 which long held large property in Perthshire.

The holdings of the different estates or tenements of land which
 the parish contains are as follows :—

Kinnaird.—The owner is the superior.

Quarol.—Erskine of Cardross is the superior of a part; the own-
 er of Quarol is the superior of another part.

Woodside.—The owner is the superior.

Stenhouse.—The owner of the estate of Callendar is the supe-
 rior. From this, it appears that Stenhouse formerly was a part of the
 estate of Callendar.

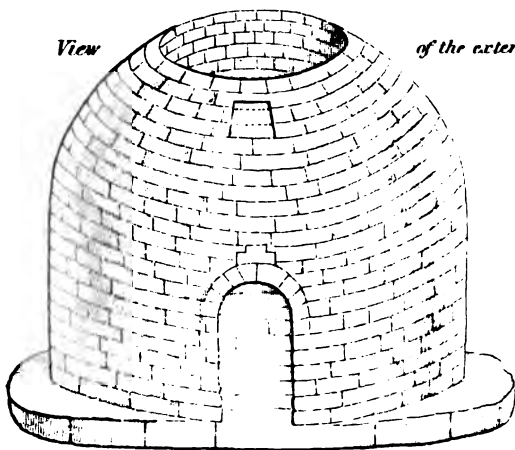
* The representative of the family of Bruce of Airth and Elphinston of Airth is
 Mr Dundas of Blair, near Culross.



ARTHUR'S OON
from the drawing of Gordon in 1725.

View

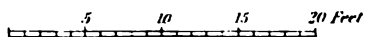
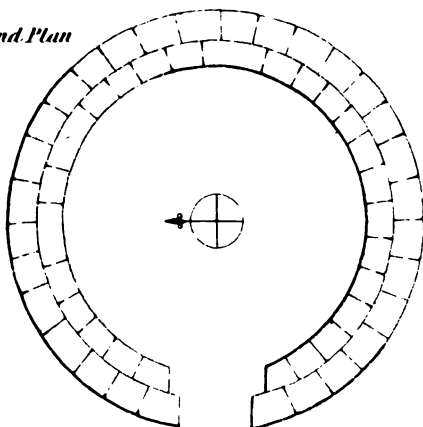
of the exterior



Section



Ground Plan



Larbert.—The Duke of Hamilton is the superior,—Larbert having been at one time a part of the estates of the Hamilton family. Kinneil, including Larbert, was erected into a barony called the barony of Kinneil.

Broomage.—Lord Errol is supposed to be the superior.*

Some of these estates have been transmitted by sale during the last 100 years : a few have not been so transmitted.

Kinnaird.—Not transmitted by sale.

Quarol.—Sold about 1755 by Elphinston of Quarol.

Stenhouse.—About one-half transmitted by feu about 1760 to the Carron Company ; the remainder not transmitted by sale.

Woodside.—Sold three times since 1780, viz. about 1780 and after that ; 1st, by Sir G. Dunbar or his heirs ; 2d, by Mr Strachan ; 3d, by Mr Russell.

Larbert.—Sold twice since 1790, viz. about 1790 and after that ; viz. 1st, by Mr Robert Chalmers ; 2d, by Sir James Riddell.

Broomage.—In 1775 was undivided, and the joint property of three owners. It was at that time divided into three parts equal in value. Each of these parts has since been sold.

Parochial Registers.—The register has been regularly kept since the year 1699 ; but although it is continuous, it is neither voluminous nor remarkable for its regularity.

Modern Buildings.—The church was begun in the year 1818, and was completed in about two years. The exterior is in the light or Elizabethan Gothic, after a plan by Mr Hamilton of Glasgow. This edifice forms an interesting object, from the Stirling road. The materials for building are abundant near the west end of the parish, and the stone is of good quality, though it is frequently porous, and by reason of its porous structure it absorbs the rain water to which it is exposed, so that the walls of a house built with it, are apt to be damp.

Antiquities—Arthur's Oon.—A remarkable Roman building, called Arthur's Oon, *i. e.* Arthur's Oven, stood on a bank sloping to the south or south by east, about 300 feet to the north of the point where is now the north-west corner of the Carron Iron-works. There is a piece of ground of the extent of about 50 feet square, which has a well sunk in it, and is used as a washing green by the inhabitants of the adjacent houses. On this piece of ground, Arthur's Oon stood. The footpath passing up the slope was long known by the name of the Oon-path. The building was called

* See the valuation roll of the county of Stirling, published in 1831.

Oven from its shape. But it does not appear in what way the name of the British Prince Arthur, famed in romance, could reasonably be applied to it. The name is therefore supposed by Gordon (*Itinerarium Septentrionale*, 1726,) to be derived from the Gaelic *Ard nan suainhe*, i. e. the high place or temple of the standards. As Arthur's Seat, near Edinburgh, is derived from *Ard nan saidhe*, the hill of the arrow, other authors say that Arthur's Seat signifies the lofty seat, and Arthur's Seir between Ross and Moray is *Ard nan seir*, the height to launch ships from. The latter part of Gordon's derivation of Arthur's Oon, viz. *suainhe*, is improbable. Ard and Arthur in Cymric or Welsh, from the same root as *Arduus*, Latin, signify high, and also the Most High God. Arthur's Oon, therefore, may signify the *oon*, i. e. the cupola or dome of the Most High God. The Cymri or Cambro-Britons are considered to have possessed this part of the country as far as the vallum of Antoninus about the year 600. The name Arthur's Oon, therefore, may be Cymric.

This building, considered to be the most entire Roman building in Britain, was demolished in 1743. All the stones were carried away, and employed in repairing a dam across the Carron for an adjacent meal mill. The dam was afterwards washed away by the river, and some of the stones probably now lie buried in the mud of the Carron. The curious will regret that the owner of Stenhouse and of Stenhouse Mill was so destitute of all regard for antiquity. He certainly was no dilettante, neither real nor pretended. He was not one of the admirers of the beautiful and of the rare in the material world, but a country gentleman who had other things to mind, and never moved much out of the parish where he was born, and died there an octogenarian. Notwithstanding all this, the building might have escaped demolition, had he not been poor, possessed a numerous family of children, his income small, and a considerable part of it derived from the mill. These circumstances moved him to employ the stones, and turn them to profit in repairing his dam; so that he pulled down this interesting fabric, which had stood fifteen centuries, and took the stones, that he might avoid the expense of quarrying stones from the sandstone rock, only two or three miles distant.

There is an accurate drawing of Arthur's Oon in Camden's *Britannia*, 1607. A drawing of it, made in 1720, by Mr Jelf, who was employed in the Ordnance Department in Scotland, is published in Dr Stukeley's description of Arthur's Oon. Jelf was ac-

quainted with architecture, and examined the building in an architectural point of view. Gordon's drawing of Arthur's Oon, from which the accompanying figure is taken, is published in his *Itinerarium Septentrionale*, 1726. It appears to be the most accurate drawing of the building that has been published. He compared his measurements with those of Jelf, and found them to agree within a few inches, except in the external diameter, which differed one foot. The principal dimensions were, the interior diameter, 20 feet; the external diameter, 28 feet; the perpendicular height, 22 feet. Jelf was informed that the building had an iron door, and at the round opening of the cupola an iron curb, in form of a hoop. These had been taken away, several years before he saw the building.

Two stone shelves ran round the interior. The arch of the door was well turned. Mr Jelf's drawing in 1720, and Dr Stukeley's description, represent and state that the arch stones fell handsomely with a square face into the courses. This is contradicted by Gordon's drawing in 1725, which represents the extrados of the arch stones of the door as semicircular. Gordon's is probably the true representation, as he had Jelf's drawing before him, when he examined the building.

The beds of the stones forming the cupola were horizontal, as represented in the accompanying section, and as Dr Stukeley states in his description. This was contrary to the principles of a vaulted cupola, in which the beds should not be horizontal, but portions of conical surfaces, having their apex in the centre of the cupola.

The building was of hewn sandstone in regular courses. Each stone generally was about 4 feet long, 1 foot thick, and 1 foot 10 inches broad. In the middle of the upper surface of each stone was a hole, which was considered to have served for receiving a lewis, by means of which the stone was raised and laid in its place.

There was no inscription on the building, which might have recorded the purpose for which the building, was erected.* Neither is there any Roman building similar in size and form, by a comparison with which, the use of Arthur's Oon might be judged of. There are certainly several Roman temples of a round form, with a hemispherical cupola; but these temples are large, and decorated

* Gordon states that there was a stone on the inside of the building, from which it appeared that letters had been industriously effaced; and another stone, also on the inside surface of the wall, on which there seemed to be the vestiges of sculpture, worn out by the weather, which might be taken for the figure of an eagle.

with architectural ornaments, whilst Arthur's Oon was small and altogether without ornament.

In the absence of sufficient proof with respect to the use of the building, and the precise time when it was erected, conjectures have been various, and the several authors who have spoken of the building have given different opinions.

Nennius, a monk, who lived about the year 810, in his history of British affairs, which, like the works of other authors of that period, contains many fictitious, false, and erroneous statements, contradicted by historians of credit, describes Arthur's Oon, and states, without adducing any proof, that it was built by Carausius, who assumed the dignity of Emperor in Britain in 284, held out against Maximian, the adopted son of Dioclesian, and ruled for seven years.

It does not appear that Arthur's Oon is mentioned by John Fordun, who lived about 1340, and was the first who wrote a general history of Scotland.

Johannes Major, in his history of Scotland, ignorantly asserts that Arthur's Oon was built by Julius Cæsar, although it is known from Cæsar's Commentaries, and from other historians, that Julius Cæsar never extended his power to this part of the country. Johannes Major states, that in his time the building was called Julius's Hof, *i. e.* Julius's House (*hofe*, Anglosaxon; *houf*, Scotch, a court, a house). Perhaps it is this word *hof* which afterwards passed into *ofn*, *oven*, and *oon*.

Hector Bœce, in his History of Scotland, which he published in 1526, asserts, without any good grounds, that Arthur's Oon was built by Vespasian, and that it was the tomb of Aulus Plautius.

Buchanan in his History of Scotland, which he published in 1582, describes Arthur's Oon in his florid style, but rather inaccurately, and represents it erroneously, as similar to the conical buildings in Glenelg, opposite to the Isle of Skye. But these buildings, which have a form something like the tower at Martello, in Corsica, are altogether different from Arthur's Oon. They are of unhewn stone, and differ from Arthur's Oon in every other respect, and are considered to be Danish.

Buchanan in 1582, and Camden, in his Britannia in 1610, suppose that Arthur's Oon was a temple dedicated to Terminus. But no such temples of Terminus have been found amongst the remains of the Romans; and it does not appear from the writings

of Roman authors, that the Romans had any temples dedicated to Terminus.

Dr Stukeley, in his description of Arthur's Oon (27 pages, 4to, 1720), will have it to be a temple dedicated to Romulus.

Dio Cassius relates, that in the Roman camps there was a small temple, in which the Roman eagle and the military standards were adored. Gordon (in his *Itinerarium Septentrionale*, 1726), supposes that Arthur's Oon was one of these temples, and that it was built about the year 75 of the Christian era by Julius Agricola, who was Prefect in Britain in the latter part of the reign of Vespasian; and was the first Roman general who ever entered Scotland with a Roman army. Tacitus, in his *Life of Agricola*, relates that Agricola fortified this part of the country, namely, the isthmus between Forth and Clyde, by a line of garrisoned forts; "Nam Glota (Clyda) et Bodotria (Votria, Vortia) * * * * angusto terrarum spatio dividuntur quod tum præsiidiis firmabatur." This prætentura, or frontier line of forts, was, it is supposed, about a mile to the north of the line on which the Wall of Antoninus, called Græme's Dike, was afterwards constructed.

Gordon, moreover, conjectures, that Arthur's Oon may have been a tomb as well as a camp-temple. The size and form of the building agree well enough with the conjecture of its being a tomb; but there is no well authenticated account that any urn or sepulchral chest was ever found in it, to confirm that conjecture.

Another period to which the building of Arthur's Oon might be ascribed, is about the year 144, in the reign of Antoninus Pius, the adopted son of Adrian, when Lollius Urbicus, the emperor's lieutenant, formed the vallum called Græme's dike from the Frith of Forth to the Frith of Clyde. Arthur's Oon is situated not far from this vallum, being about two miles north of it. It may, therefore, be conjectured, that Arthur's Oon might be built about the time of the construction of the vallum. There is, however, no direct nor satisfying solution of the question to what period of the Roman dominion in Britain the building belongs. It is probably not of so late a date as 310, when Constantine reigned. About 100 years after which, namely in 407, the Roman dominion in Britain came to an end, in the reign of Honorius, two years before the sacking of Rome by Alaric. During the next thirty years, troops were occasionally sent by the Romans to assist the provincial Britons against the attacks of the Scots and Picts. But at last this aid ceased, and no further assistance could be obtained in

444, in the reign of Theodosius the younger, the Romans being then too seriously engaged in war with Attila, who had overrun a great part of Europe. The provincial Britons thus left unprotected by the Romans, in 449, brought over the Saxons to defend them.

Roman Mill-stones and fragments of Pottery.—About the year 1800, the labourers in digging and draining a piece of ground consisting of peat moss, about 1000 feet north-east of the site of Arthur's Oon, found three or four mill-stones, about eighteen inches in diameter. One of these which I saw, consisted of a dark coloured lava, like the lava of the mill-stones of the great mill-stone quarries of Andernach on the Rhine. A similar mill-stone, consisting of the same lava, was found in 1895, lying on a stone which contained the epitaph of a Roman soldier, at the Mumrills, a place where there was a station on the vallum of Antoninus, about four miles east of the site of Arthur's Oon.

Along with the three or four mill-stones at the mossy piece of ground, 1000 feet distant from the site of Arthur's Oon, the labourers also found, according to the account I received from one of them, fragments of pottery, and the remains of a fabric which they considered to be a potter's kiln; also a paved road, and two iron rims of wheels.

Torwood Head.—On the highest point of the Torwood are some narrow low vaults, probably the remains of a castle or signal tower of the middle-ages, but of what precise period is unknown.

Old Mansion-houses.—The mansion-house of Stenhouse was built in 1622, and has that date inscribed on it. Its ground plan consists of the two adjacent sides of a rectangle being in the shape of the letter L. In the internal angle is a round staircase, and there are turrets at the upper part of the five external angles of the building. This form of building was much in use in Scotland, about the period from 1580 to 1650, and there are in different parts of Scotland, a great many country mansion-houses of a similar form built during that period.

The mansion-house of Torwood Head, (in the parish of Dunipace,) now ruinous, is built upon a similar plan to that of Stenhouse. It is larger and probably older. On the mansion-house of Woodside are inscribed the initials of Rollo of Woodside, with a date of about 1700, if I recollect right. At that time, the number of mansion-houses in the parish was four. They were situated at Kinnaird, Quarol, Stenhouse, and Woodside. The present

owners of Kinnaird and Stenhouse hold them by inheritance from the owners who then possessed them. The rest of the lands which the parish contains, have passed into the hands of other families by sale.

Square Towers. — At the periods which preceded 1550 or 1500, the residences of the land-owners or country chiefs were not of the nature of country mansion-houses, which could not have suited the disturbed political state of the country. They were not the dwellings of people in a state of peace, but were small fortresses constructed for defending the inhabitants from the attacks of their neighbours. The residence of a Scotch chief about 1300 or 1350, was prepared for defence. The state of the country rendered this necessary. The chief would try sometimes to repair or better his fortune, as the hero of the *Odyssey* proposed to do, by carrying off his neighbour's cattle,* and the residence of the chief was formed into a kind of military position, and fortified for defence against the attacks of his neighbours, who were also plunderers. This station or stronghold of the Scotch chieftain consisted of a square tower, which could only contain a small garrison, and adjacent to the tower were probably a number of huts, in which the family, the dependents, and followers of the chief had their dwellings.

There are some vestiges consisting of fragments of walls of such fortalices, on the lower part of the southern slope of the Kilsyth hills, about ten miles west of Larbert, viz. at Colieum and at Kilsyth, and on the Campsie hills, which are a part of the same ridge. One of these square towers, called Plaine-mill tower, still exists, about four miles north of Larbert. The tower, which is placed upon a sandstone rock very little raised above the adjacent flattish country, is solidly built of stone, with thick walls. The corner-stones and window jambs and sills well squared. The dimensions of the interior are not more than about 18 feet by 14. There was

* Μηλα δ' ἄ μοι μνηστῆρες υπερφίαλοι κατακίρην
Πολλὰ μὲν αὐτὸς ἐγὼ ληίσσομαι. ἀλλὰ δὲ Ἀχαιοὶ
Δαεῖς' εἰσοῦσι πάντας ἐμπλήσασιν ἐπαυλὲς Ὀδυσσεύας ψ.

What sheep the wasting suitors did consume,
I'll take so many as shall fill their room,
The friendly Greeks the rest will soon provide,
Till all my coats (i. e. cots,) and stalls are resupplied.

The *Odyssey*, translated by John Ogilvy, Esq. Master of his Majesty's Revels, &c. 1665.

a ground-floor and two upper floors. The ground-floor, vaulted and without windows, perhaps a loop hole or two. There are the remains of a building adjacent to the tower, which was a mansion-house, built at a period somewhat more recent, and was no doubt the residence of the owner of the estate of Plaine. Such a tower would scarcely be large enough for a garrison of twenty men.

These small quadrangular towers or fortalices, (*fortalitium*, in Latin of the middle-age, a small fort), several of which exist in different parts of Scotland, were built, perhaps, after the model of the great square towers erected by William the Conqueror, about 1070, such as the castle at Newcastle-upon-Tyne, Richmond, in Yorkshire, Rochester Castle, the Tower of London, Hedingham Castle in Essex.* The ornamental parts of these great towers are in the round arched Byzantine style, as are also the two great abbey churches built by William at Caen, in Normandy. Of a less ancient period is Borthwick Castle in Midlothian, a quadrangular tower of considerable size, built in 1430. It contains a large hall, the ceiling of which is a pointed-arched vault. A charter is preserved, in which the King grants permission (*ad castrum edificandum*) to build the castle. By means of this charter, the period in which Borthwick Castle was built is ascertained.

III.—POPULATION.

At the union of the parishes of Larbert and Dunipace, the population of each parish was small, and that of Larbert considerably the least. The establishment of the iron-works at Carron has changed matters entirely. By the census taken about the year 1790, the Rev. G. Harvey, minister, makes the population about 400 souls. It appears, however, to have been but loosely done, as he takes the census of adults, and allows a per centage for children under age. By the census of 1831, which was carefully managed, the population was found to be 4262 souls. There is no reason to believe, that there was any great increase during the period between the two census; but since 1831, there has been more appearance of augmentation.

The heritors are the only persons of independent fortune residing in the parish, of whom there are seven who are resident usually or occasionally.

* Engraved with its details of architecture in the *Vetusta Monumenta*, published by the Society of Antiquaries of London.

There are 710 inhabited houses, and 38 building, or under thorough repair.

In the parish, there are six insane, and as many deaf and dumb persons.

Language.—The language of the working-class has been much improved within the last twenty years, *i. e.* it has become something more like the modern written dialect of English. There is still a coarseness of expression, which is too general. In cleanliness, a more marked improvement has taken place. The people are better lodged and better clothed. The luxury of the *midden** is still indulged in, but it has given place, in a great many instances, to the flower-plot. We are often delighted by seeing the labourer or handicraft-man amusing himself with the easy toil of tending his flowers after his day's work. The agricultural peasantry are unchanged in their diet, which is full and wholesome, save by the use of pig-flesh, which has become very general, and thus a supply of *kitchen* is secured at an easy rate. Among the manufacturing people, wheat bread is in very general use, but among the landward folk, the oat-cake, and occasionally scones of barley and potatoes, have the preference. The use of butcher-meat† has greatly increased during the last ten years.

Poaching is common, especially hare-snaring.

The game of curling is keenly pursued by the farmers, masons, and such others as are impeded in their work by hard frost. The colliers play at quoits, and also at long bowls, which consists in hurling a four or six pound shot along the high road, to the occasional annoyance of the passenger.

Before the establishment of the Carron iron-works, the parish was thinly peopled, and the population consisted of a few country people, who grazed some cattle and ploughed a small portion of the land. Their food consisted chiefly of oatmeal, barley meal,‡ and milk, potatoes being at that time unknown in the country.

Seventy years ago, *viz.* about 1760, just before the establishment of the Carron Iron works, the surface of the parish had a

* *Miden, me-dyng*, a muck heap, *møeg dyng* in Danish, composed of *mæg*, which signifies muck, and *dyng*, a heap.

† The butcher in the dialect of this part of the country is called the *flesher*. The word *flesh-er* is from *Vlees houwer*, Dutch, a butcher, literally a feller and cutter-up of flesh.

‡ At the old farm-steads, there used to be seen a stone mortar in which barley was pounded. This mortar was made of a block of sandstone,—the hollow of the mortar being about one foot in diameter, and one foot in depth.

The mill for making pot barley by grinding off the husk was introduced from Holland.

different appearance from that which it now has. It was then a poor district, very little of it ploughed, and that little ill cultivated. Farming was in a rude state, as well as other mechanical arts. The roads were bad, and no attention was paid to the art of road-making. The land was almost all uninclosed. In one place, namely, in the lands of Broomage, that awkward mode of farm management called runrig was in practice, that is to say, the lands of Broomage belonged to three owners conjointly, and the arable part was allotted by them, so that the first ridge was ploughed and cultivated by the joint owner A, the second ridge by the joint owner B, the third by C, the fourth by A, and so on. This was done with the intention that each owner might have an equal share of the arable part of the ground, and also that the arable part lying all together might be more conveniently protected from cattle. In 1776, the three joint owners agreed to make a division of these lands into three parts equal to each other in value, and that each owner should have one of these thirds. This being accomplished under the superintendence of an arbiter, the system of runrig cultivation ceased.

As there were no inclosures, the cattle were kept from trespassing on the corn by a boy or girl as a cowherd.* The children at the age of seven or eight were sent out to this occupation, and thus they began the world. It was certainly a more healthful employment than that which falls to the lot of the cotton factory children of the present day, who are condemned by fate to make their first steps in this valley of tears, confined all day in the unwholesome dusty air of a close room.

An inhabitant of the parish in the old bygone times did his work leisurely and at his ease, much in the same way as a gentleman works who takes care not to fatigue himself. But now-a-days, the population of Great Britain is more crowded, and consequently men must work harder to earn their daily bread and to obtain other necessities of life. In compensation, the workman of the present day has more of the conveniences of life; he is better lodged, better fed, and better clothed than the countryman of the former period.

The parish is now all enclosed and cultivated, the roads good, the population considerable in number, and many pieces of ground

* The children were sent out to the herding, in the language of the parish. A herd in Scotch is equivalent to the English word a herdsman, *hird* in Anglo-saxon, *hirt*, German, *der gute hirt*, the good shepherd in the gospels, *hyrda*, Icelandic, to protect.

are covered with rows of houses, inhabited chiefly by workmen employed at the Carron Iron-works, such as moulders, furnace-men, carters, &c. There are also a number of nailers in the parish not connected with the Carron Iron-works.

Thus we see that the inhabitants of this part of the country, (and the same may be said of all Scotland,) were in former times rather poor, but some progress had even then been made in wealth, during the last 370 years, viz. since the year 1390.

At that time, the inhabitant of Scotland, even of the Lowlands, was scarcely possessed of any of the conveniences which are produced by arts and industry, by means of which men in a more civilized state of society try to make life tolerable; he therefore, of necessity, endured and tolerated life with the less complicated means which were within his reach, and without the aid of any machines or artisans, but the very rudest. Cattle was the chief produce, and some barley and oats were grown.* On the sea coast, there were but a few sailors and trading vessels.

Every manufactured article, such as leather, bridles, saddles, and all iron instruments and geer, were imported ready made from Flanders. They could scarcely make a horse shoe. Horses were

* Perhaps also a little wheat. Grains of wheat reduced to a black charcoal substance were found about 1795, at the Roman station of Castlecary, on the vallum of Antoninus Pius, called Græme's dike. We may suppose that this Roman wheat grew in Scotland. But the state of the country was so wild for a long time after the Romans left it, that I should have difficulty in supposing the existence of a regular yearly succession of crops of wheat in Scotland since their time. It may be doubted whether any of the wild inhabitants had sufficient leisure and industry for growing wheat in the years 600, 700, 800, 900, 1000, and intervening years. In these years the succession of events always going on, was of such a nature as to bring about but little progress in civilization. The cultivation of a little barley and oats was probably all that the inhabitants could effect, and these two kinds of grain, it may be supposed, have been grown in Scotland from an early period, and without intermission. In the Hebrides, the summer is short and not warm, and therefore unfavourable to the production of grain. That species of barley called bear is the principal grain which is grown, and that not in any considerable quantity. In 1837, some wheat was grown in Ulva, said to be the first wheat ever grown in the Hebrides. The year 1837 was sunny and favourable to agriculture. Ulva, or the middle of Mull, is about the 56½ degree of latitude. The most northern point of Europe at which grain is grown, is 5 or 6 degrees farther north, viz. in a valley in Norway, in latitude 62°, where barley, oats, and even rye are grown. The summer heat at that place may perhaps be as great as in Mull. The growth of barley is carried on in different climates, and over a very extensive portion of the surface of Europe and Africa. Barley was grown by the ancient Egyptians, and bread made of coarsely ground barley, recognizable by the unground grains, has been found in the catacombs at Thebes. We see thus that barley is grown in Europe and Africa, from about the latitude of 22 to latitude 62 degrees, from about the tropic to within 5 degrees of the arctic circle, in a range of 40 degrees of latitude.

In old charters and conveyances of land in Scotland, breweries (brassaria) are mentioned. I do not know whether it is ascertained, at what time the distillation of spirit from the fermented infusion of malted barley was introduced.

scarce and dear. This part of the world is not like many places in India, where the soil and climate produce different kinds of grain, bananas, cocoa-nuts, and other kinds of food, with little labour. Our soil and climate are unfavourable to the production of grain, and it is only by means of great labour that grain can be ripened. The chief natural and indigenous production useful to mankind, is black-cattle.

At the period of which we are speaking, about 1390, the inhabitants were altogether without industry; very little of the ground was in tillage. They were in a state of wild inactivity. They had no disposition to mechanism, no dexterity in practical mechanics and carpentry, or the conversion of hides into leather, as the Russian boors have. They had no skill to extract metal from the clay ironstone and lead ore which some parts of the country contain. They had not the knowledge nor experience necessary for working the pit-coal. They were unable to make the manufactured articles which they needed. They got them, therefore, from Flanders, but they could only get them in small quantities because they had very little to give to the merchant, and therefore would receive little from him. They went to market possessed of but very scanty means of buying, for all they had to give in exchange consisted in some ox hides. Few or no other articles of export could be afforded by the ill-cultivated country, raw climate, and inhabitants without industry and harassed by war.*

* Here is the account Froissart gives of Scotland, during this old order of things about 1390, in the reign of Robert, King of Scotland, and when Richard II. was King of England. Froissart, born at Valenciennes, lived at that time, and had visited Scotland.

Haindebourg† (est) la souveraine ville d'Escoce et ou le roi se tient le plus, quand il est au pais. Haindebourg (nonobstant que le roi d'Escoce y tiene son siege et que c'est Paris en Escoce) n'est pas telle ville comme serait Tournay ou Valenciennes, car il n'y a pas en toute la ville quatre mille maisons, (this number of houses, reckoning a family of five to each house, will contain a population of 20000)...En Escoce ne viennent oncques nul homme de bien et sont ainsi comme gens sauvages: qui ne savent avoir et de nulluy accointer et si sont trop grandement envieux des biens d'autrui: et si doutent de leur bien perdre, car ils ont pauvre pais: et quand les Anglois y vont ou cherauchent (ainsi comme ils ont fait autrefois plusieurs fois) il convient que leur pourveances (s'ils veulent vivre) les suyvent toujours au dos, car on ne trouve rien sur le pais qu'à grande peine; (the Scotch took care always to drive their cattle out of the way before the arrival of the English); et n'y trouve l'on point de fer pour ferrer les chevaux, ne cuir pour faire harnois, selles ne brides, car les choses leur viennent par mer de Flandres toutes faites: et quand elles defaillent, en leur pais n'en trouvent point...Les François y trouvoient les chevaux si chers que ce qui ne deust valoir que dix florins il en valoit soixante ou cent, et encore à grand peine en pouvoit on recouvrer...le roi (Robert) estoit dans la sauvage Escoce,...or vint le roy Robert d'Escoce avec uns rouges yeux rebrossés il sembloit de sendal: et bien leur mon-

† Haidenbourg would be a more reasonable way of writing the name. Edinburgh is from Edwin'sburgh. Edwin was a North-humber-land-ian prince, *Dunn-edin* in Gaelic, i. e. the town and hill-fort of Edwin.

The population of Scotland contained only a few individuals devoted to mechanical arts, and those of the most ordinary kind, and

strait qu'il n'estoit pas aux armes fort vaillant homme, et qu'il avoit plus cher le sejourner que le chevaucher, mais il avoit jusqu'à neuf fils : et ceux aymoyent les armes...le roi n'estoit pas en bon point pour chevaucher.

...Et s'en vinrent le roy (d'Angleterre, Richard II.) et les Anglois loger à Haindebourg la souveraine ville d'Escoce : et là fut le roi cinq jours. A son departement elle fut toute arse : et rien n'y demoura, mais le chatel n'avoit garde, car il estoit bien fort : et si estoit bien gardé...Et epargnoient les Anglois abbaies ne monstiers ains tout mettoient en feu et en flambe...Tout en telle maniere que les Anglois se demenoient en Escoce aussi se demenoient les François et Escoçois en Angleterre et en la marche de Northombellande et de Galles,...(Galles means Cumberland, the land of the Cymri.) Si retournerent les Escocois en leur pais et les Francois aussi, par le chemin qu'ils estoient allés : et quant ils furent retournés en la douce Escoce, (Froissart calls it sweet gentle Scotland, ironically I suppose,) ils trouverent tout le pais destruit. Mais les gens du pais n'enfesoient compte : et disoyent que sur six ou huit estançons ils auroient tantost fait nouvelles maisons et trouveroient assez betes pour vivre. Car les Escocois les avoyent sauvees et chacees aux forets, (these beasts were, no doubt, cattle of the ox species, which species is probably indigenous, and an inhabitant of the country ever since a remote period when mankind had not yet got a footing on this part of the earth's surface. It is possible also that some sheep were reared in some parts of the south of Scotland, at the period of which Froissart speaks. The sheep thrives tolerably well in some cold countries, for example Shetland and Iceland.) L'Admiral (de France messire Jehan de Vienne) et les barons et les chevaliers qui estoient en sa compaignie (à Haindebourg) eurent moult de disette et de souffrete : et ne trouvoient à peine rien pour leur donner à vivre. De vins n'avoient ils qu'à grande peine, et de la petite cervoisee, et du pain d'orge ou d'avoine et estoient les chevaux morts de faim, (the town of Edinburgh had been burnt a short time before this by the English army under Richard II.,)...et disoient les Escocois que les Francois leur avoyent plus porté de dommages que les Anglois et quand on leur demandoit enquoy ils respondoient pource qu'en chevauchant par nostre pais ils ont foulé et abbatu les blés les orges et les avoines : et qu'ils ne daignoyent chevaucher les chemins : desquels dommages ils vouloyent avoir recompense avant qu'ils departissent d'Escoce : et plusieurs chevaliers et escuyers se plaignoyent des bois qu'on les avoit coupés et desertés, et tout ce avoyent fait les François pour eux loger...

Le jeune roi Charles, (i. e. Charles VI.) et le Duc de Bourgoyne...L'admiral leur dit bien que Escoçois retournoient par nature avec la condition des Anglois (car ils sont envieux sur les estrangers) et leur dit que si Dieu lui aidast il aimeroit mieux estre Comte de Savoye ou d'Artois ou d'un tel pais que roy d'Escoce...Et que toute la puissance du roy d'Escoce il avoit veue en un jour ensemble (si comme les Escoçois le disoyent) mais de chevaliers et d'escuyers il ne se trouverent oncques que cinq cens lances : et environ trente mille hommes pouvoient ils bien estre d'autres gens (bien mal armés) (he adds in another place) : qui contre les archers d'Angleterre ou contre gens d'armes nauroient nulle duree."

Thus translated by Sir Johan Bouchier, Knight, Lord Berners.

"Edinborowe (is) the cheif town in Scotlande, and where the kyng (Robert) in time of peace (in the French copy it is, 'when in that part of the country,') most commonly lay...For Edinborow, though the kyng held there his chefe residence, and that it is Parys in Scotland, yet is nat lyke Tourney or Valencenes, for in all that town there is nat four thousande houses...In Scotlande ye shall find no man lightly of honour nor gentylnesse, they be lyke wyld and savage people: they will be with no man acquainted, and are greatly envious of the honour or profyte of any other man: and they doubt ever to lese that they have, for it is a poor countre: and when the Englyshmen maketh any roode or voyage into the countre, as they have done often before this tyme, if they thynke to lyve, they must cause their provusion and vitayle to followe theym at their backe, for they shall fynde nethyng in that countre but with moche payne: nor they shall fynde none yron to shewe their horses, nor leddar to make harness, sadelles, or bridelles: for all such thyngs cometh to them redy made oute of Flaunders, and when that provision failth, there is none to gette in the countre. When they (i. e. the Frenchmen) were in Scotlande, and woud ryde, they found horses to dere, for that that was not worthe tenne florins they coude not bye under threescore or a hundred, and yet with moche payne to gette any for money...

which are necessary even to the poorest and rudest nations. It contained no workmen bred to mining, to working in metals, to making of woollen cloth, of linen, of leather, to the production of grain and cattle in a great way, and no capital nor capitalists to pay the wages of such workmen, to pay for the formation of young workmen, and to sell the produce of their work. To say that the country was without mechanical artists and without capital, is to say that it contained no manufactures, for artists and capitalists are the constituent parts of a manufactory.

(and afterwards when they wanted to sell their horses they could find no buyers.) The kyng (Robert) was in the wylde Scottysch, (i. e. the Highlands)...Then came the kyng Robert of Scotland: he had a payre of red bleered eyen. They looked like sendal, which is a red stuff of silk, (i. e. he had a retroversion of the eyelids,—an infirmity to which old age is subject,) and it seemed right well by him that he was no valiant man in armes: it seemed he had rather lye still than to ryde: he had 9 sons, and they loved well armes...The kyng was not in good point to ryde a warfare...And the kyng (of England, Richard II.) came and lodged in Edinborow, and there tarried fyve dayes, and at his departing it was set afyre, and brent up clene,*

* The houses in Edinburgh, about 1380, were probably, in great part, constructed of wood, and the roofs covered with branches of trees, with turfs and with straw, some perhaps with fissile sandstone, called in Scotland grey slate. Even in those buildings which form what is now called the Old Town of Edinburgh, many of the fronts of the houses are of wood.

In 1544, Edinburgh was again burnt by the English, and there is an old drawing of a view of Edinburgh, supposed to have been made just before that burning. This drawing is amongst the Cotton MSS. in the British Museum; and an exact copy of it is engraved and published in the Bannatyne Miscellany, Edinburgh, 1827. In this drawing, the roofs in the Canongate are all coloured gray to represent thatch. The roofs in the town are coloured red. This the draftsman may have done; because in many of the towns in England, with which he may have been familiar, the roofs have long been covered with flat tile. But it is probable that tile was not used in Scotland in 1544,† and that the roofs were usually covered with straw thatch, and some of the better sort of them with thin flags of fissile sandstone. The church of the Abbey of Holyrood had some lead as a covering to the roof. It was the custom formerly to inscribe upon the house the number denoting the year in which it was built. Amongst the dates so inscribed on the houses of the old town of Edinburgh, there are not many or none older than about 1591. There was one in the Old Bank Close, south side of the Lawnmarket, a well-built mansion, with the date of 1591 on it.

Edinburgh, altogether, is not an ancient town. It is probably little more than 1000 years since the first fortress was built on the castle rock, and the first dwellings pitched on the adjacent ground. No inscriptions, coins, or other relics of the Romans are found, which shows that on the site which the town now covers, there was no Roman station, and probably no collection of dwelling places of any kind about 450, when the Romans had finally left and given up all connection with Britain. The only relic of the Romans, which might be supposed to belong to Edinburgh, is a pair of heads in bas relief, built in the front of a house in the Nether Bow. But these heads have probably been brought from some Roman station in the adjacent country. They may have belonged at one time to a church or monastery, for they have been set up as if to represent Adam and Eve, the inscription placed between them being the doom pronounced on the first man and all his descendants, “in sudore vultus tui vesceris pane tuo,” in letters of the black letter form, of perhaps about 1400. Some antiquaries consider the heads to be portraits of the Emperor Alexander Severus and his consort.

† Tile-making, brick-making, and pottery were scarcely, I should think, amongst the small number of the mechanical arts practised in Scotland in 1544.

IV.—INDUSTRY.

It appears that about 90 men are occupied in agriculture, and 880 as handicraftmen; but, as those are mostly in the service of the Carron Company, some of whose workmen reside in Larbert, while others are in Falkirk, and a few in Bothkennar, it has not been deemed of great importance to ascertain very accurately the number in each parish, as the whole amount of persons employed at Carron will be given hereafter.

Agriculture.—The parish contains about $4\frac{1}{2}$ square miles, or more exactly about 3100 imperial acres, of which probably 200 are occupied by plantations, and pleasure-grounds, and roads. The whole of the remainder is arable, and under cultivation. Of this, nearly 350 are of carse or alluvial clay soil, and the system of a six rotation is universally followed, viz. 1. fallow; 2. wheat; 3. beans; 4. barley; 5. hay; 6. oats. No definite rotation is observed on the dry-field land; a large portion is in grass, and occupied by graziers from Falkirk, or by the cattle-dealers who

but the castell had no hurt, for it was strong ynough, and well kept...The Englysshemmen spared nother abbeyes nor minsters, but set all on fyre...Thus in lykewise as the Englysshemmen dyde in Scotlande, so dyde the Frenchemen and Scottes in the marches of Northumberland and Wales, (*i. e.* Cymberland the land of the Cymri, now called Cumberland). So the Frenchemen and Scottes returned into Scotlande the same waye they came, and whan they came into Scotlande they found the countrey destroyed; but the people of the countrey dyde sette but lytell thereby, and sayd howe with thre or four poles shortly they would make again their houses, for they had saved moche of their cattle in the forests.

“When the admiral and his company (he had come over to Scotland with about ‘mille lances tant chevaliers qu’escuyers la fleur de chevalerie et d’escuyerie,’ that is to say about 1000 cavalry), were returned from England and come to Edinborowes, they had endured great payne, and as then they coude finde nothing to bye for their money (the town of Edinburgh had lately been burned by the English army under Richard II.). Wynes they had but lytell, and but small ale or beer, and their bredde was of barley or of otes, and their horses were deede for hunger.....And the Scottes sayd how the Frenchemen dyde them more damage than the Englysshemmen had done; and whan it was demaunded of them why so? they answered and sayde howe the Frenchemen as they rode abroad, they beat down and defoyled their cornes, as whete, barley, and otes (the wheat was no doubt only in a few fertile spots, such as the carses, and some parts of East Lothian, &c.) and would not kepe the highe wayes, but rather ryde through the corn: of which domages they sayde they wolde have of them a trewe recompence or they departed out of Scotland, and sayde howe they shulde nother have shyppe nor maryner to passe them over the see without their leave; and dyvers other knyghtes and squyres complayned that their woodes were cutte downe by the Frenchemen to make them lodgynges.....

.....The Yonge Kynge Charles (*i. e.* Charles VI.) and the Duke of Burgoyne...The admiral said to them how the Scottes somewhat resembled the Englysshemmen, because they be envious over strangers; and moreover he sayde that he had rather be Erle of Savoye or Erle of Arthoyse, than be King of Scottes; and sayde how he had seen all the power of Scotland in one day togyder, as the Scottes sayde themselfe, and yet he never saw togyder past 500 speres (*i. e.* cavalry), and about a xxx thousand other men of war; the which nombre agaynst Englysshe archers, or agaynst a thousande of other good men of armes, coude not long endure. (About seventy years before this, however, the Scotch army had beaten Edward II. and his English archers at Bannockburn in 1313).

attend the tryst. When the land has remained some years in grass, it is usual to take two crops of oats, when from sixty to seventy-six bushels of oats are frequently obtained at each cropping; then follows a green crop, and the field is laid down with barley and grass seeds.

The farming has been very much improved, of late years, in this parish. The land is kept clean, and the new system of furrow-draining has been adopted almost universally. This is the only efficient system, in lands which have a retentive subsoil. It was at first called wedge-draining, the section of the cutting being a frustum of a triangle inverted, whose base was about ten inches. A wedge of peat moss was then placed in the top of the drain, so as to leave a space of eight or ten inches perpendicular for a water-course. This mode was found to have only a temporary effect, and the plan of laying for the water-course, a semicylindrical tile, which reposes on a flat tile of a breadth exceeding the diameter of the curved one by about half an inch, is the most approved method. This mode has been long adopted in England. A foot of space above the tiles is filled with broken sandstone or Carron cinders, through which the water percolates. The effect of these drains is most satisfactory, and the tenants are anxious to carry on the improvements, even without the assistance of the landlords, which was necessary before experience had established the good effects of the system.* Bone dust, *i. e.* bones ground to powder, has not been much used as a manure, although it has been applied with great success in the neighbourhood. The usual wages of a labourer are 10s. a week throughout the year. A good ploughman obtains from L.18 to L.22, besides the usual allowances. In addition to the land above stated, there are 140 acres of moss in the parish, being a part of Letham moss. The soil beneath is of very good quality, but covered with a mass of decayed vegetable matter, in the form of peat moss, to the depth of from 10 to 16 feet. Very little of it has been cleared; nor does it appear likely that it will be so, as there is no rapid stream by which the moss could be carried off.

Manufactures.—There are several nailers; but, with the exception of the tambouring of muslins for the Glasgow houses, which oc-

* For some other particulars respecting draining, see the article Soil in a preceding part of this account. Under the article Soil, are also some remarks on the Hyphenum or fog in pastures, and some other matters relating to agriculture.

cupies a part of the time of the females in many of the cottages, the only manufactory of importance in the parish, is the iron manufactory at Carron. The number of people employed in this great work, and the consequent demand for every product of the soil, from an oak tree to a cabbage plant, renders an account of the parish of Larbert and the Carron Iron-works almost identical.

The Carron iron-works were first established at Carron in the year 1760, by a company consisting of Messrs Roebucks, Garbet, and Cadells,—Dr Roebuck being from Sheffield, and Mr Garbet from Birmingham. They procured workmen from these two places, which have been so long famous for their manufactured productions in iron and other metals; and these workmen aided essentially in the erection and establishment of the Carron Iron-works. A charter was obtained in 1773, and judicious arrangements were made, which eventually contributed to the success of the works. The site of this work was chosen on account of the abundance of coal, and also the great water-power. The ironstone and limestone are brought from a considerable distance.* It has been ever found that manufacture follows coal. The potteries at Newcastle-under-Lyne, situated in the centre of England, receive the flint from near Gravesend, the sand from Lynn, and the clay from Devonshire: coal alone is found in Staffordshire, where the potteries are situated.

The command of water at Carron, both for water-power to turn wheels, and also as a mean of transport, is considerable. Above the foundry, is a reservoir covering thirty acres of land. A cut from the centre of the works connects them with the Carron River. The goods are stowed in lighters, which drop down to Grangemouth with the tide, where they are shipped in smacks for the London market. A double rail-road communicates with the Forth and Clyde Canal, and thus the goods are conveyed to Glasgow and Liverpool.

In the year 1786, the management of the works was committed to Mr Joseph Stainton, who improved the works, and by unremitting diligence in the execution of orders, and great attention to the quality of the goods offered to the public, placed the foundry in the high position which it now holds in the estimation of

* All the ironstone used is of the species called by mineralogists clay ironstone. Some of it is got in the coal measures at Carron Hall, a mile from the works. Some at Banton, Tamraver, and other places in the parish of Kilsyth, ten miles distant, and brought down by the Forth and Clyde Canal. Some is collected at different places on the shore of the Frith of Forth. Some is got from other places.

the commercial world. During the war, a considerable part of the iron cannon used by Government, was made at Carron, and the excellence of the guns was so uniform, that the officers of the different branches of the service gave a decided preference to Carron, over all the other founderies which were employed from time to time.

We can attest, from personal inspection, that the guns of Duke Wellington's battering train were all from Carron. This is not an occasion to discuss the comparative merits of brass and iron ordnance; but so conclusive has been the disquisition to the mind of the French Government, that, in the year 1835, a committee of French artillery officers was permitted by the Carron Company to superintend the construction of some trial guns, which had been ordered by the French, with the sanction of our Government. This liberal conduct need not awaken national jealousy, as, with regard to the mixture of ores and the composition of the metal, which is the only secret worth knowing, the Frenchmen went just as wise as they came. The iron-work has been for ten years under the management of Mr Joseph Dawson, nephew of the late Joseph Stainton, who has greatly improved the works. Nearly 8000 tons of pig-iron are smelted from the ironstone annually, and manufactured into every description of article, from an ounce weight to a boiler of several tons. 1200 men are employed about the work, exclusive of a very large farming establishment, and a marine comprising six large smacks trading to London, three to Liverpool, and numerous sloops used in carrying lime and ironstone. A substantial double rail-road connects the foundery with the collieries of Kinnaird and Carronhall. Another railway forms a communication between the works and the shipping wharf on the Forth and Clyde Canal at Bainsford.

For many years, there have been five blast-furnaces; two of those have been lately pulled down and rebuilt on a new construction, adapted to the application of the hot-blast. The engine employed for the blast is of very large dimensions, having a steam cylinder of 66 inches diameter, and making on an average sixteen to eighteen strokes per minute.

The Carron Iron-works were, for many years, the largest in Scotland; but recently some of the blast-furnace establishments near Glasgow have been increased, so as to surpass the number of blast-furnaces at Carron.

Some of the English works, also, are larger. Messrs Craw-

shay and Sons in Glamorganshire had, in 1835, so great a number as thirteen blast-furnaces, if I recollect right, and they, moreover, convert the cast-iron into the malleable state of bar-iron, a very important process, which is not carried on at Carron, and which has not yet, in 1839, been done, to any considerable extent in Scotland.

The glassy slag from the blast-furnaces, consisting of vitrified lime and other earths, * called in the district *danders*, was long an incumbrance, and huge hills of this scoria were accumulated. In consequence of the attention paid to the repair of roads, this material (in the absence of metal of greater endurance,) is so much in request, that it (the *danders*) is carried away as soon as taken from the furnace.

V.—PAROCHIAL ECONOMY.

Market-Town.—There is no market-town in the parish; and the several large villages of Carronshore, Stenhouse muir, Cuttyfield, Quarol, Larbert, are parts of the Carron Iron-works, or its dependent collieries, all of which places are supplied with butcher-

* This slag swims on the surface of the liquid iron in the furnace. It consists of all those parts of the coke, limestone, and ironstone, which are vitrifiable by the heat of the furnace. It consists of silicate of lime, and, if I recollect right, the colour which prevails in the slag has been ascribed by some modern chemists to silicate of tetanium. In an iron smelting-furnace, commonly called a blast-furnace, the iron, which in the ironstone exists dispersed in very minute particles in the state of oxide of iron, is deprived of its oxygen by the carbon of the coke, and is thereby reduced to the state of cast-iron. The small drops of this cast-iron collect gradually during twelve hours, and falling down, unite together into a liquid mass in a cavity at the bottom of the furnace. On the top of the liquid iron in this cavity, the slag swims and flows out in a liquid red-hot state. At the end of every twelve hours, the keeper of the furnace, a strong muscular man, taps the cavity, by perforating and demolishing forcibly, with an iron bar, the dam of fire-clay which forms the front of the cavity. When an opening is thus made, the liquid iron flows out in the state of cast-iron, and is received in cavities made in the sand, which give it the form of pieces of about two-and-a-half feet long, called pigs, and the iron in this state is called pig-iron. After the melted iron has been let out and cast into pigs,† the keeper again makes up the front of the cavity with fire-clay, and the cavity then receives again the melted iron, which drops into it from the body of the furnace during the next twelve hours; the sides of the lower part of the furnace being in form of a funnel, which terminates in the cavity.

† Cast-iron is called in Scotch *yetlin*, a word derived from the same root as *gielen*, Dutch; *giuta*, Swedish; *gyde*, Danish; *giessen*, German; *jeter*, French; all which signify to cast. *Guss-eisen*, German, is from the same root. The English word, to gush, is also from the same root.

Cast-iron appears to have been unknown to the ancient Egyptians, Greeks, and Romans. I do not know of any instrument of cast-iron amongst the works of these nations which are preserved.

Cast-iron has long been made in China and Japan. The Chinese cast it into the form of bowls for boiling rice in and other vessels.

About 1740–1750, no cast-iron was made in Scotland, and the cast-iron plates used for the backs of fire-places in rooms were imported from Holland. They had the figure of a parrot on them in relief, and other figures; some of these were perhaps made at Siegen, in Germany.

meat from Falkirk, at a distance of three miles, or by butcher-carts, which weekly visit the parish.

Means of Communication.—There is a penny-post at Carron and another at Larbert. The mail and a daily coach pass through Larbert, and coaches twice a-day pass through Carronshore, affording conveyance to either Edinburgh or Glasgow.

Ecclesiastical State.—The parish church is most incommodiously situated at the extreme west end of the parish. It contains sittings for 1200 persons, all of which are free except those appropriated to the heritors and their tenants. The manse was built in the year 1790, and in 1828, a large addition was made to it. The glebe consists of four acres of good land, and of a grass glebe of five acres. The stipend is sixteen chalders and a-half of oat-meal and barley. A helper is employed for the united parishes, who receives from the heritors L. 60 yearly. On the whole, the church is well filled; in the very cold weather, many of the workmen who are employed during the week over large fires, are unwilling to expose themselves to the cold of the church. There are in the parish about 1200 Dissenters; but there is no place of worship but the church. The Dissenters, *i. e.* the Seceders, &c. go to public worship in the Seceders' churches at Falkirk, &c.

Education.—There are in the parish seven schools, *viz.* the parish school, one endowed and five unendowed schools, at which 513 children are regularly taught. This is a smaller number, with reference to the population, than could be desired, and it arises in a great measure from the circumstance that the colliers, moulders, and others, are enabled to turn their children's labour to profitable account at the age of twelve years. The style of teaching is extremely good. The explanatory system is adopted, and in many instances is successfully pursued.

English grammar, geography, writing, and arithmetic, are generally taught. Latin is also professed in several of the schools; but here, as elsewhere, the taste for the study of dead languages is on the wane.

The parochial schoolmaster has the maximum salary, and the school fees are worth about L. 60 per annum. The usual charge for teaching the ordinary branches, is threepence a week for each child.

There is a school within a reasonable distance of every house in the parish.

Library.—There is a parish library under the care of the minister.

Friendly Society.—There is no savings bank in the parish, but there is a Friendly Society at Carron, which is managed with great ability, and which has a most advantageous effect. There are also several dead funds for defraying the funeral expenses of the subscribers or their families.

Poor and Parochial Funds.—The management of the poor is entirely in the hands of the minister and kirk-session, who attend most carefully to their duties in this respect, as well as to the more direct duties of their sacred office. The number of persons on the poor roll is, on an average, 36. The following is a statement of the usual funds to meet the expense incurred.

Annual subscription from the heritors, being at the rate of L.4 Sterling on the L.100 Scots valuation,		L. 26	0	0
Collection at the church door,	- - - - -	70	0	0
Donation,	- - - - -	8	0	0
Total,		L. 104	0	0

In addition to the above, there is a sum of L. 500 given to the poor by the late Colonel Simpson of Pleau, the yearly interest of which is expended in coal and food for the poor during the severest weather. Many of the resident heritors have a list of pensioners whom they relieve weekly.

Fairs.—The tryst of Falkirk is held within the parish of LARBERT, (on a dry sandy level moor or heath, the property of Sir Michael Bruce,) on the second Tuesday of the month of August, September, and October. The first market is only for black-cattle. The two last are much more numerous attended. At each of these markets, there are about, 1st tryst, 4000 black-cattle, 400 horses and ponies; 2d and 3d trysts, 17,000 black cattle, 20,000 sheep, 700 horses and ponies. The tryst is of considerable advantage to the country, as it occasions a demand for grass and foggage. The second crop of clover is generally let for the two last markets, at the rate of L. 2 per acre; and a great deal of money is also circulated among the keepers of public-houses.

It is much to be lamented, that the number of houses licensed for the sale of spirits is so great; and there can be no doubt that the habitual use of ardent spirits has had a most injurious effect upon the morals of the people. The magistrates have endeavoured to check the increase of these houses; but the use of this al-

coholic spirit, namely, whisky, is by no means diminished. The parish is well supplied with coal, and at a cheap rate.

There are several vessels belonging to Carronshore, but these all belong to the Carron Company, who have also a small dry-dock at the same place, where these vessels are repaired.

MISCELLANEOUS OBSERVATIONS.

In the parish of Larbert, the working class enjoys the means of comfort,* to as great an extent as in any part of Britain. The people are well lodged,* fuel is cheap, the schools are admirably conduct-

* The houses of the country people, which are now building from time to time to replace the old and decayed dwellings, are more roomy and more convenient,—better built and better roofed,—the walls and the doors higher, and the windows larger than they were in the old houses.

The houses of the country people generally consist of a ground floor, without any upper floor. A laigh house it is called in Scotch. This ground floor is about 30 feet by 15, divided by a transverse wall into two rooms of about 15 feet square each.

The entrance is in the middle of one of the 30 feet sides. The outer door enters into a small lobby. From this lobby there is on one hand a door into the kitchen, and on the other hand a door into the other room. In the old dwellings of the country people in this part of the country, the outer door was near one end of the house, and gave entrance to the first room; from this first room there was a door which led to the inner room. The house consisted of a but and a ben in the language of the country. The but, (be out, i. e. towards the out,) was the outer room. The ben (be in, i. e. towards the in,) was the inner room. A few of the present dwelling-houses are larger, and have two floors, a ground floor and an upper floor. The roofs are now seldom covered with straw thatch, they are most commonly covered with pan tile, and many of the new ones are covered with slate.

A thick thatch of straw laid upon the roof of a house is a good non-conductor of heat, and consequently keeps out the cold and keeps in the warmth produced by the fire, and by the inhabitants; and also keeps out the heat of the sun better than a covering of tile; but has the disadvantage of being apt to take fire by sparks falling on it from the chimney,

Wheat straw is preferred to other kinds of straw for thatch. Straw from which the ears have been cut without threshing, is better than threshed straw. But this operation is too troublesome, and, therefore, threshed straw is usually employed. The sheaves should be threshed with the flail, taking care not to bruise the straw, or at least as little as possible. Straw from the threshing mill is bruised and unfit for thatch.

The stalks of lint are sometimes used in some parts of the adjacent country as thatch.

The stalks of brakens (*Pteris aquilina*) are used as thatch in some parts of the Highlands; heather also. Reeds are used in some places.

In tropical countries the leaves of palms of different kinds, &c. are used for thatch.

The older kind of thatched roof, which is still used in some parts of the adjacent country, is made by laying sticks upon the roof. The sticks are pretty close together and parallel to the rafters. On these sticks, which are undressed, straightish branches of trees, there are laid thin turfs, called divots, pared from the surface of an old pasture. These divots are laid like tile in an imbricated form, and under each divot is laid the end of a handful or wisp of straw, which straw forms the thatch. The divots serve to keep the straw fixed to the roof. The rafters, called in this part of the country the couples, and the other timbers of these old roofs, consist of round unsquared sticks.

In the newer method of thatching, and which is now more generally used than the other in this parish, there are laths nailed to the rafters transversely, and to these laths the straw is tied by tarred rope yarns. This is done by passing the rope yarn through the straw and round the lath by means of a long iron needle a foot or more in length.

Thatch, and the equivalent word in the language of this part of the country, *thack*, are of the same etymological class of words, as *theacun*, Anglo-saxon, to cover; *thac*, Anglo-saxon, a roof; *dach*, German, a roof; *tego*, Latin, to cover; *tectum*, Latin, a roof.

ed, and the markets are reasonable as to price, and very abundantly supplied. The people are on the whole intelligent. They have one bad habit, a propensity to drinking, and, like its sister fire, a good servant but a bad master ; —many a clever fellow falls a victim to whisky.

PARISH OF DUNIPACE.*

I.—TOPOGRAPHY AND NATURAL HISTORY.

Topography.—THE parish of Dunipace is bounded on the west and north by the parish of St Ninians ; on the east, by the parish of Larbert ; and on the south, by the parishes of Falkirk and Denny, the far-famed river Carron separating it from the latter for nearly five miles. Its form approaches to that of a triangle, and it contains about 4600 Scots acres ; valued rent in the cess-books, L.3138, 11s. 8d. ; real rental, including lands, mills, quarries, and annual produce of woods, upwards of L.6000 Sterling. The teinds are all valued, some at a more early, and some at a more recent date. They amount to L.483, 9s. 3½d.

Name.—This parish takes its name from two beautiful earthen mounts called “ the Hills of Dunipace,” situated in a small but beautiful plain, traversed by the river Carron. They are about sixty feet in height, and both together cover about two Scots acres. Buchanan says their name is derived from *Dun* or *Dunum*, the Celtic word, signifying a hill or tower on a hill, and the Latin word *pax*, peace. Other etymologists, say with much more probability, that the name is derived from two Celtic words, *Duin-na-Bais*, or *Dunabas*, (pronounced *pas*,) hills or tumuli of death. In writs issued by Edward I. of England, at Dunipace, 14th October 1301, it is written Donypas. Buchanan, and most historians after him, say that these hills are artificial. He adds, that they were raised to commemorate a peace concluded between Donald I. and the Roman Emperor Severus, in the early part of the third century. These opinions appear to be wholly untenable. Any lengthened discussion on this subject being inconsistent with this work, we merely mention, that, in the immediate neighbourhood, there are several similar though less remarkable earthen mounts. About two miles to the westward of these hills, there was a very beautiful one about forty feet in height, and covering nearly three roods of ground, said also to be artificial. This hill was mutilated, from time to time, for the purpose of re-

* Drawn up by Mr Robert Watson, Parochial Schoolmaster of Dunipace.

pairing roads and other purposes. It was entirely removed about six years ago, to form an embankment on the turnpike road near Denny bridge. The strata of which this hill was composed, were carefully observed during its removal. These were so regular, and as if rising out of, and gradually returning again to similar strata in the circumjacent level ground, as to afford conclusive evidence that the hill was not the work of man. On the top of this hill, and about three feet below the surface, was found a coffin or tomb, composed of five large unwrought stones, in which were the bones of a human body, scull and teeth not much decayed. Along with these, was a vase of coarse unglazed earthenware, containing a small quantity of material resembling the lining of a wasp's nest, probably decayed paper or parchment, which in the lapse of ages had assumed that appearance. No conjecture could be formed about the individual here interred, tradition being entirely silent on the subject ; but this circumstance corroborates the opinion of some writers, that the hills of Dunipace might have been used as burying-places for ancient chiefs. For, previous to the erection of bridges in this district, the ford in the vicinity of these hills was the principal passage over the Carron, and would be the scene of many a bloody conflict between hostile armies. Hence the appropriateness of their name, "hills of death."*

II.—CIVIL HISTORY

Heritors.—There are twenty-nine heritors in this parish, of which the principal are,

Estates.	Proprietors' Names.	Valued Rent.
Denovan,	James Johnston, Esq. of Alva,	L.779 17 7
Dunipace,	Thomas Spottiswoode, Esq.	441 3 9
Quarter,	John H. Brown, Esq.	305 7 6
Torwoodhead,	Major Dundas, Carron Hall,	251 10 10
Herbertshire,	William Forbes, Esq. of Callendar,	156 4 4
Burnhouse,	Peter Muirhead, Esq.	116 13 8
Househill,	Sir Gilbert Stirling, Bart. Larbert,	110 5 11
Bogend,	Robert Bauchop, Esq.	102 5 8

L.2263 9 3

The balance of L.875, 2s. 5d. is divided among the remaining twenty-one heritors, in various proportions ; only three of them are

* Perhaps after all, the learned criticism that has been bestowed on the name "Dunipace," the meaning simply may be "the round hills at the pass, i. e. over the Carron, or, the pass at the round hills." It is in favour of our theory of these hills that the French form of the Celtic word Dun is "La Dune," plural "Les Dunes," meaning small conical hillocks, such as those sand hills on the coast of Kent, near Deal, the most of which are now covered with the sea. Hence that well known road for ships in the neighbourhood of these hills is called the "Downs." Tradition says that the site of the Dunipace hills was formerly covered by the German Ocean.

under L.50 per annum of real rental. Of these twenty-nine heritors, eight are Dissenters, whose joint valuation amounts to L.401, 6s.

Mansion-houses.—Herbertshire Castle.—This is a very ancient building. The date of its erection is unknown. Its situation on the north bank of the Carron is very beautiful. The banks of the river above the house are extremely picturesque,—sloping in stripes of verdant meadows, tufted with trees to the water's edge, and rising boldly into rocks fringed with brushwood, and crowned with plantations, amid which a beautiful variety of walks conducts to the most striking features of this romantic scene. It was originally a royal hunting station. In the fifteenth century, it was in the possession of that once powerful family the Sinclairs, Dukes of Orkney. In the following century, it was the property of the Earls of Linlithgow, from whom it passed into a family named Stirling, cadets of the Stirlings of Auchyle in Perthshire. An heiress of this surname, Lady of Lord Alva, Senator of the College of Justice, sold it about seventy years ago to a Mr Morehead, whose grandson sold it in 1835 to the present proprietor, William Forbes, Esq. of Callendar, M. P. for the county of Stirling.

Torwood Castle.—The ruin of this castle stands about a quarter of a mile to the westward of the turnpike road from Falkirk to Stirling, surrounded by the remains of the ancient Caledonian forest. Its history is involved in much obscurity. It was long in possession of the Baillies, who were at the same time proprietors of Castlecarr, in the parish of Falkirk. One of these Baillies married a daughter of the first Lord Forrester, by whom he became father to the second Lord Forrester, from whom this estate came by purchase into the possession of the late Thomas Dundas, Esq. grandfather of the present proprietor, Colonel Dundas of Carron Hall. The forest of Torwood is associated with all that is ennobling in patriotism and personal valour. Here stood Wallace's oak, 12 feet in diameter, in the hollow of which he and his patriotic companions, it is said, used to meet and concert their plans for wresting their country from the grasp of the ambitious Edward. This noble son of the forest disappeared about thirty years ago, after having weathered the storms of a thousand winters. Not far from the site of this tree, Mr Donald Cargill, in the month of September 1680, in the presence of a numerous assembly, pronounced sentence of excommunication against some of the most violent persecutors of

that day, among whom were Charles II., his brother, James Duke of York, Duke of Monmouth, and several other persons of note. This act of Mr Cargill's was never publicly approved of by Presbyterians.

Dunipace.—This beautiful estate was, in 1606, in the possession of Mr John Levingston, who was one of the jury appointed to try six Presbyterian ministers at the instance of King James VI. for meeting with some other ministers, and holding an Assembly at Aberdeen, in the preceding July, without his Majesty's consent, who was then exerting himself, by every means in his power, to erect Episcopacy on the ruins of Presbytery. Six of the jury voted, "not guilty," among whom was the laird of Dunipace, who, says Calderwood, not only absolved these ministers from being guilty of treason, but maintained "they were honest ministers, faithful servants of Jesus Christ, and good subjects of the King." This independent manly conduct of the laird of Dunipace, King James was weak enough to resent afterwards. This same gentleman, in 1621, as Member of Parliament for the shire of Stirling, voted against the adoption of the "five articles of Perth." Dunipace afterwards came into the possession of the Primroses, the last of whom, Sir Archibald, having in 1745 joined the rebel army under the Pretender, was taken prisoner and beheaded at Carlisle. Dunipace then fell into the hands of Government, from whom it was afterwards purchased by the father of the present proprietor, Thomas Spottiswoode, Esq. The mansion-house, which stands within a few yards of the site of the old church, is of modern architecture, and has an elegant appearance.

Quarter-House, the residence of John Harvie Brown, Esq. was built by the late Alexander Brown, Esq. on a rising ground to the eastward of the turnpike-road leading from Denny to Stirling. It had, for a number of years, rather a bleakish aspect; but the clumps of trees intended to screen it from the north and west winds now growing up, give it both an elegant and comfortable appearance.

Carbrook-House, the seat of John Campbell, Esq. is built in a very romantic situation, within half a mile of Torwood Castle, the woods around which adorn Mr Campbell's house, in a very picturesque manner.*

* Since the above was written, the following alterations in the state of property have taken place,—James Johnston, Esq. of Alva, has sold Denovan to William Forbes, Esq. of Callendar, by which purchase Mr Forbes is now the first heritor. The Dunipace and Quarter estates are now conjoined by John Harvie Brown having

III.—POPULATION.

The population of this parish in 1831 was 1278 ; since that time, from accommodation having been built for nearly fifty additional families, the number has increased to 1460,* of which above 1000† belong to the Established Church ; the remainder, exclusive of those that attend no church, belong to the Dissenters, who have two places of worship, in the neighbouring parish of Denny. It is worthy of notice, that the adherents of the Establishment have increased greatly here since the agitation of what is called the Voluntary Question, which has been conducted in this quarter with unexampled virulence.

It is a curious fact, that there is neither a medical man nor a clergyman, a smith‡ nor a wright, nor even a resident beggar in this parish ; and it is but of late, that there was either a baker or a tailor in it. The oldest resident families are the Muirheads of Tyggetshaugh and the Watsons of Wester Barnego.

IV.—INDUSTRY.

Agriculture.—Of the 4600 acres which this parish contains, there may be about 500 acres under wood, partly planted and partly natural ; about 300 acres of moor, moss, and rock ; the remainder arable, but of very different qualities. Two-thirds of it lie on a substratum of sandstone ; the remainder on whin rock. It rises at its western extremity to the height of 600 feet above the level of the Forth. Its eastern parts terminate in the carse of Stirling, a few feet above the level of that river. The average rental may be about L. 2 per Scots acre of what is reckoned good land. Some fields, however, on the banks of the Carron, let as high as L. 3 and sometimes L. 4 per acre. With a very few exceptions, the land is cultivated in as improved a method as it will admit of. The nature of the soil will not bear often cropping. A considerable proportion is always laid down in grass, for rearing and feeding cattle. Considerable quantities of turnips are raised, and still more of potatoes, which are generally of a very good quality. Formerly, flax was sown on every farm, but since foreign flax was so plentifully imported, that crop has given way to wheat, which grows here well. From the proximity of the Campsie hills, Den-

married Miss Spottiswoode, heiress of the late Thomas Spottiswoode, Esq. of Dunipace. This makes Mr Brown now the second heritor.

* By the census of 1841, the population amounts to 1578, whereof 1100 belong to the Established Church.

† From the continually shifting, and anomalous nature of a calico-printing population, no accurate statistical account of them can be given.

‡ Since the above was written, a smith has commenced business here, and is doing well.

ny-moor, and other high moorland districts, a great quantity of rain falls, particularly during the continuance of the westerly winds, which prevail here during eight months in the year; yet, from the unevenness of the surface, assisted by draining, there is scarcely any stagnant water in this district, a circumstance, no doubt, favourable to the health and comfort of the inhabitants. From this draining and other agricultural improvements, the river Carron, except in time of floods, discharges a much less quantity of water than it did fifty years ago. To command a supply of that necessary article to the numerous mills on this stream, a large reservoir has been lately formed on one of its feeders called Earl's Burn, in the parish of St Ninians. Every article of farm produce finds here a ready market and a good price. Rents are all in money. Cattle are generally of a moderate size. Heavy ones are found not to be profitable on light soils, either for dairy or feeding. Labourers' wages run about 10s. per week; men-servants' L. 16, and women L. 9 per annum. The number of separate farms is forty, and of families depending on agriculture about sixty-eight, being rather more than one-fifth part of the whole population.

Manufactures.—There are two extensive and respectable calico-printing establishments in this parish, viz. Herbertshire and Denovan. The former was begun in 1783, the latter in 1800. The number employed at Herbertshire print-works, the property of Charles Carnie, Esq. in September 1836, was nearly as follows:—Block-printers, journeymen, 16; apprentices, males, 44; females, 40. Tierers, one to each printer, and a few called paper-layers, 110; print-cutters, dyers, colour-mixers, labourers, &c. from twelve years of age and upwards, 100; girls employed in sewing and fringing, 80. Total number employed, 390. A great quantity of goods are printed here by machinery. Some of these machines put in four different colours almost at the same instant.

Near these works, the proprietor has a genteel country residence, but its beauties are considerably obscured by the lowness of its situation, and by the proximity of the neighbouring village of Herbertshire.

The number employed at Denovan print-works, the property of James Graham Adam, Esq. from an official statement, is as under:—Block-printers, journeymen, 100; apprentices, males, 85; females, 15. Print-cutters and pattern-drawers, 30; colour-mixers, dyers, bleachers, and general labourers, 80; sewers and fringers of shawls, vary, according to the season of the year, from 50 to 150,—

average, say, 90; miscellaneous, employed during the course of the year, 20; tierers, composed of boys and girls, one to each printer,—the ages of this class of workers vary from six to twelve years, 200. Total number employed, 620. Journeymen printers earn from L. 1 to L. 1, 10s. per week; male apprentices earn from 10s. to 15s.; and females from 5s. to 10s. per week, according to their respective skill and expertness; print-cutters and drawers earn from 15s. to L. 1, 15s; labourers from 7s. to 12s.; and tierers from 2s. to 2s. 6d. per week.

Of the workmen belonging to these two printing establishments, about one-third are domiciled in this parish, the other two-thirds live in the opposite side of the river Carron, in the village of Denny; consequently, the general manners of the inhabitants in both places are very similar.

The scenery around Denovan Works fascinates the eye of every traveller. On their southern boundary, the red-roaring Carron, with its thousand associations, just escaped from its native mountains, moors, and glens, rolls its now peaceful waves. A little to the eastward stands the parish church with its beautiful Gothic tower, rising majestically above the surrounding oaks. A few yards higher in the landscape, stands Mr Adam's House, delicately screened from the northern blasts, by the rising eminences in the back-ground of this beautiful panorama.

Mills.—There are in this parish three grain-mills, two flax-mills, one mill for carding and spinning wool, and one for grinding charred wood for Carron Iron-Works.

Quarries are four in number—all producing superior freestone. One of them abounds with excellent flag or pavement stone, which has an extensive sale. Considerable quantities of these flags are carried in carts and boats to a great distance. These quarries employ about 40 individuals.

V.—PAROCHIAL ECONOMY.

Villages.—There are three villages—Herbertshire, Denovan, and Torwood; the former contains about 761, and the two latter about 150 inhabitants each. There are eight tippling-houses, one to every thirty-seven families; and in the closely adjoining village of Denny, there is a tippling-house for every twenty families, and the whole seem to be well-frequented, some of them both night and day.

Bridges.—Previous to the year 1824, carriages passed the Carron-
STIRLING. B b

ron near Dunipace House by a ford, and foot-travellers by steps. In that year, a handsome bridge of three arches was erected a little below the-ford. In 1828, the bridge over the Carron, between the parishes of Dunipace and Denny, on the Glasgow and Stirling road, being considered unfit, from its height and narrowness, for the wheel-carriages of the present day, and also in an unsafe state from its age, was removed, and a neat substantial bridge of three arches erected in its place.

Farmers' Society.—About two years ago, a Farmers' Society was formed for the purpose of encouraging agricultural improvements, and particularly for improving the breed of cattle. The Society has a ploughing-match and a cattle-show every year. Almost all the proprietors and farmers in the parish are members. Much good, in these particulars, has already been done, and much more is expected from the exertions of this respectable Society.

Poor.—The number of poor on the roll averages about 10, who receive from 1s. to 3s. per week respectively. The heritors assess themselves annually, generally at the rate of 20s. per hundred pounds Scots of valued rent. The amount from collections at church door, and interest of a sum belonging to the parish, varies from L. 50 to L. 60 per annum. Besides this, the late William Simpson, Esq. of Plean, left L. 500 to the kirk-session for behoof of the poor not on the roll. The interest of this sum is expended annually in purchasing coals, paying house rents, and otherwise, as the kirk-session may direct.

Schools.—There are two schools—the parochial school, situated near the centre of the parish, and a private school in the small village of Torwood. The greater part of the scholars attending this school, come from the contiguous parishes of St Ninians and Larbert. There was a parochial school-house built in this parish in 1696, but whether it was the first in the parish or not, cannot be determined,—the parish, or rather existing session records, extending no farther back than 1707. The number of scholars attending the parochial school has averaged, for the last twenty years, about 60. Fees for reading, 2s. 6d., with writing, 3s.; arithmetic, 3s. 6d.; Latin, French, and Greek, 5s. per quarter. The schoolmaster is kirk-treasurer, for which he receives L. 2, 2s. per annum. The salary is the maximum. The school-room and school-house are built on a liberal scale. The garden is of the required extent. The office of session-clerk, worth L. 5 per annum, has not been held by the present schoolmaster, nor by his imme-

diate predecessor. The number that cannot read, is not great ; but many, particularly of the female part of the rising generation, read so imperfectly, that they can reap little practical benefit from it. This arises chiefly from the prevailing but reprehensible practice of putting mere infants to work, in the several manufactories in this district.

Ecclesiastical History.—This parish was originally a chapel of the parish of Egglis, now St Ninians, and was conveyed, along with the other chapels and oratories of that parish (*i. e.* the said abbey was founded very lately before the said annexations) to the newly founded Abbey of Cambuskenneth, by Robert the sixteenth Bishop of St Andrews, about the year 1130. An uncle of the renowned Sir William Wallace was parson or officiating priest of Dunipace, in the latter part of the thirteenth century. Sir William frequently made his uncle's house his home. The following lines, said to be composed by his uncle in the fashionable style of that period, were often repeated by that hero :

Dico tibi verum, libertas est optima rerum
Nunquam servili sub nexu vivito fili.

Which may be translated,—

I tell you truth, of all things liberty's the best,
O never be my son with slavery oppress.

At the period of the Reformation, Dunipace and Larbert were erected into separate parishes. Dunipace was then more populous, and by far more wealthy than Larbert, so much so, that the latter parish could not maintain a minister. A union, therefore, with Dunipace was desired, and accomplished under the authority of two acts of the Scottish Parliament 1617 and 1624. From various documents, and from immemorial usage, it appears that the terms of union were, “ That there should be one minister only for the two parishes ; that each parish should retain and maintain its own church, and its own school ; that each parish should have its own kirk-session, and maintain its own poor separately ; that the celebration of Divine service, and the pastoral labours of the minister should be equally divided between the parishes.” It appears also, in consequence of the above terms of union, that Divine service was uniformly celebrated alternately in both churches. The sacrament of our Lord's supper was also uniformly dispensed alternately, the Fast-day services preceding each sacrament being performed in the church of the other parish. On other occasional fasts, public worship was observed alternately. This union seems to have given satisfaction to all concerned, till after the induction

of the late Dr Robert Knox, in 1794, when a deviation from the terms of union was observed to take place, by the minister preaching oftener in Larbert than in Dunipace.

This apparent indifference about Dunipace on the part of the minister, reduced still farther the *debris* of that congregation, the greater part of whom had already become Seceders. At last, on the 28th of April 1799, alternate service was finally given up. In 1801, complaint was made to the presbytery of Stirling against Dr Knox, who obtained a vague kind of sentence in his favour, which was afterwards confirmed by the synod of Perth and Stirling "allowing Dr Knox to preach oftener in Larbert than in Dunipace, on account of the increase of population in the former parish;"—a decision evidently *ultra vires* of any ecclesiastical court, the civil rights of the parish being thereby injured, such as the collection for the poor, &c. After this, Divine service was performed two days in Larbert, and one in Dunipace till 1823, when Dr Knox declined preaching altogether in the parish of Dunipace. The sacrament of our Lord's supper was not administered in Dunipace, after 1795 till 1830. A process before the church courts was commenced by the heritors in June 1825, for recovering the rights of the parish of Dunipace; but the death of Dr Knox in the month of December following, put an end to that contest. The present incumbent, the Rev. John Bonar, was inducted to the charge of these parishes in 1826, and immediately resumed the practice of preaching two Sundays in Larbert, and one in Dunipace. But the impropriety of having either of these parishes without the regular dispensation of Divine service, became so apparent to all concerned, that, after some preliminary arrangements, an assistant to Mr Bonar, at the joint expense of both parishes, was obtained, by which Divine service was performed in both churches every Lord's day. Mr Bonar, however, continued to preach as above, till the opening of the new church of Dunipace. Since that time, Mr Bonar has preached alternately in both churches, agreeably to the original terms of union between these parishes. The congregation of Dunipace has, from a few individuals, increased to several hundreds. The kirk-session at present consists of the moderator and three lay elders.* Here, as elsewhere, there is an unwillingness to accept of that office.

Old Church.—This church was situated within a few yards of

* Since the above was written, other two elders have been elected,—making the present number five.

the "Hills of Dunipace," where the burying-ground belonging to the parish, still is. It was a very plain building, with galleries in front and ends, affording accommodation for 350 sitters. The date of its erection is unknown. From several appearances of arches in its walls, it probably had originally several aisles attached to it. Its stability was not called in question, till two or three years before its removal, when a mason was employed to insert in its front wall, a marble tablet to the memory of William Simpson, Esq. who left, as above stated, L. 500 to the poor of the parish. This mason, and others employed for the purpose of inspecting it, declared its walls to be in a dangerous state; of which opinions the result was

The New Church.—This church stands a mile and a half to the westward of the old church, on the top of one of these little knolls with which, as was formerly noticed, this district abounds. Its situation is peculiarly fine. It is built in the Gothic style, with a tower, in which there is a very good bell. It is seated for 604 individuals, and cost L. 2500. It was opened for public worship on Sunday the 29th of June 1834.

Stipend.—The parishes of Dunipace and Larbert, being under the pastoral superintendence of one minister, his stipend is allocated from the teinds of both parishes. The stipend, as fixed by the Court of Teinds in 1823, the period of the last augmentation, is 8½ chalders of barley and 8½ chalders of oatmeal, at the fair prices of the county, with L. 16, 13s. 4d. for communion elements. The manse was lately repaired at the mutual expense of both parishes. These repairs cost L. 660. At the manse, which stands in the parish of Larbert, there is a good glebe, the common property of both parishes, and there is another glebe belonging to the parish of Dunipace, worth at least L. 10 per annum. The Crown is patron.

Revised September 1841.

PARISH OF STIRLING.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

REV. ALEX BEITH, 1st Charge, West Church,
REV. GEO. CUPPLES, 2d Charge, East Church,
REV. ALEX. LEITCH, 3d Charge, East & West Do. } *Ministers.**

I.—TOPOGRAPHY AND NATURAL HISTORY.

Latitude and Longitude.—STIRLING CASTLE is situated in latitude 56° 6' north, and longitude 3° 55' west.

Name.—The etymology of the name is uncertain. The names Stirling and Strivilin or Stryviling were, at one period, both in use, as we find them both occurring in the same Acts of Parliament. The latter name, at an earlier period, almost uniformly occurs; and this in documents reaching back to the beginning of the twelfth century. On the other hand, it appears from a passage in William of Worcester's Itinerary, that, as early as his time, it was known by the name of Styrling. By Buchanan and others, who have Latinized the name, it has been called Sterlinum. On the present seal of the burgh, there are the words *Sterlini oppidum*. On an ancient seal, the castle is called *Castrum Strivilense*.* The place was also, at a very early period, known by the name of Snowdon, which is said to signify *the fortified hill on the river*.

Extent, Boundaries, Figure, &c.—The parish is 2 miles in its greatest length from west to east; and 1½ mile in its greatest breadth from north to south. Its figure is very irregular; depending in some places on the waving line of the Forth, in others on the deep indentations made in it by the parish of St Ninians. By this parish it is bounded on the west, south, and east; by the parish of Logie, on the north-east and north; and by the parish of Lecropt, on the north. It contains, besides the site of the town and castle, and the numerous gardens, &c. connected with them,

* Drawn up by the Rev. George Cupples, East Church, Stirling.

† The Rev. Mr Stirling, Minister of Port, who edited Nimmo's *History of Stirlingshire*, a learned antiquary, and extensively acquainted with the topography of this district, conjectures that the ancient name was Strila, and gives the following etymology; "*strigh*" strife, and "*logh*," bending the bow; *Strighlagh*, the strife of archery. Mr Stirling says of himself that, not being a Gaelic scholar, he took great pains to ascertain from those who were accurately acquainted with the language, the etymology of the names of places in the county.

1030½ imperial acres. The soil of the landward part is generally of a rich carse clay. The King's Park, which is somewhat elevated above the carse, and of an undulating surface, and some parts of the high grounds in the neighbourhood of the castle, consist of what is here called dry-field, that is, a sharp, warm soil, adapted to the cultivation of oats, barley, turnips, &c. There is scarcely any waste hilly ground in the parish. There are no caves or caverns. The sloping eminence on which the upper part of Stirling and its citadel are built, in combination with the River Forth, the rich vale through which it flows, and the magnificent scenery formed by an extended plain and fine ranges of hills and mountains beyond, give it great picturesque beauty. This eminence rises gradually from the south-east, and terminates abruptly on the north-west. On the highest part of it, where it is girt by lofty and precipitous rocks, at an elevation of 220 feet above the plain, stands the ancient Castle of Stirling, which, when seen from the south or west, itself forms, with its solemn gray battlements and tower, and the sheer precipice beneath, an object of great and striking beauty; and commands all around a panorama of almost unrivalled loveliness and grandeur, comprehending in its details, (one of which is the extraordinary winding of the slowly receding and gradually extending river,) almost every feature that can gratify the sense of sight, and present to the mind an impressive image of natural beauty, adorned with the artificial, but legitimate, embellishments superadded by the hand of industry. At a small distance, and in different directions, are seen three or four similar eminences, rising like this from the surrounding alluvial flat. All these, and especially the Castle-hill of Stirling, are said by those who have visited the East, to bear a striking resemblance to the eminences on which the Acropolis of Corinth and of Athens, and other citadels, are built.

Meteorology.—The temperature of the atmosphere here, as compared with the neighbouring districts, is warm; the ground being, with the exception of the upper parts of the town of Stirling, but a few feet above the level of the sea. In the winter season, the frosts are generally of short continuance, and alternated with open and comparatively mild weather. Occasionally, they are intense and continued; even to the effect of, in some rare instances, covering the Forth with ice of considerable thickness, and making it practicable for sliding and skating, and converting it into a thoroughfare between Stirling and the village of Cambuskenneth Ab-

bey. In summer, or rather towards the beginning and during the earlier part of autumn, the temperature is occasionally very high, but seldom steady for more than a week or ten days at a time. Indeed, the changes between heat and cold, and wet and dry weather, are great and frequent, and often very sudden throughout the year.

Through the kindness of a gentleman residing here, who has kept an accurate register for some years, I am enabled to furnish the following tabular information, which I have deduced from his papers.

Atmospheric pressure.—The following table shows the range of the barometer for every month of 1839 and 1840 :—

Months.	Highest.		Lowest.	
	1839.	1840.	1839.	1840.
January, .	30.5 in.	30.4 in.	28. in.	28.7 in.
February, .	30.3	30.7	29.2	29.2
March, .	30.3	30.7	29.3	29.9
April, .	30.7	30.5	29.4	29.7
May, .	30.3	30.4	29.3	29.5
June, .	30.3	30.2	29.3	28.5
July, .	30.3	30.3	29.5	29.2
August, .	30.3	30.4	29.5	29.2
September, .	30.	30.3	29.1	29.1
October, .	30.5	30.5	29.6	29.1
November, .	30.1	30.5	29.1	29.
December, .	30.3	30.5	29.1	29.2
Means,	30.3083	30.45	29.2	29.1916

The following shows the range of the barometer for every year from 1825 to 1839 inclusive :—

	Highest		Lowest	
1825	30.7 in.	January, 10.	29. in.	January 16.
1826	30.6	March, 13.	29.	Dec. 2.
1827	30.7	Feb. 3.	29.	January, 14.
1828	30.6	October 29.	29.1	May, 2.
1829	30.9	Dec. 13.	29.	April, 13.
1830	30.7	January, 12.	29.1	Nov. 7.
1831	30.6	January, 13.	28.8	Dec. 7.
1832	30.5	January, 15.	29.1	Nov. 29.
1833	30.5	July, 30.	29.1	Oct. 26.
1834	30.7	Dec. 14.	28.9	Dec. 1.
1835	30.7	January, 3.	28.9	Oct. 26.
1836	30.5	May, 4.	28.7	January, 23.
1837	30.4	April, 8.	29.	Oct. 30.
1838	30.5	January 8.	28.6	Nov. 30.
1839	30.7	April 10.	28.	January, 7.
Means,	30.62		29.02	

Temperature.—The following table shows the range of the thermometer for every month of 1839 and 1840 :—

Months.	Highest.		Lowest.	
	1839.	1840.	1839.	1840.
January, -	48	46	18	22
February, -	46	47	21	32
March, -	45	47	26	27

Months.	Highest.		Lowest.	
	1839.	1840.	1839.	1840.
April, -	54	58	38	37
May, -	57	60	39	41
June, -	68	66	52	51
July, -	67	63	55	55
August, -	64	67	49	50
September, -	59	60	45	43
October, -	58	56	35	36
November -	50	52	22	31
December, -	48	47	21	23

The daily average for each month was as follows :—

Months.	1839.	1840.
January, -	32.29	36.9
February, -	35.32	36.31
March, -	36.67	38.32
April, -	43.26	48.26
May, -	49.32	50.32
June, -	58.68	57.36
July, -	60.29	58.58
August, -	57.97	59.93
September, -	53.5	51.26
October, -	46.67	45.84
November, -	42.3	40.8
December, -	36.08	36.29

Mean daily averages, 46.0375 48.4308

The hottest day in 1839 was the 18th of June, when the thermometer stood at 68°; the coldest the 10th of February, when it was at 21°. The hottest day in 1840 was the 7th of August, thermometer at 67°; the coldest the 30th of January, thermometer at 22.

All the observations were made at 9 o'clock A. M. and 9 o'clock P. M.

Weather.—The following table shows the recurrence during 1840 of the other particulars, which, along with the pressure and temperature of the atmosphere, combine to form the character of the weather :—

Months.	Days of					
	E. wind.	W. wind.	Calm.	Rain.	Frost.	Snow.
January, . . .	9	12	10	17	7	3
February, . . .	12	15	2	13	12	4
March, . . .	7	21	3	6	19	0
April, . . .	13	12	5	12	2	0
May, . . .	16	12	3	16	0	0
June, . . .	5	21	4	20	0	0
July, . . .	0	23	8	19	0	0
August, . . .	8	15	8	13	1	0
September, . .	7	16	7	21	3	0
October, . . .	4	13	14	10	11	0
November, . .	9	4	17	15	9	2
December, . .	6	5	20	10	15	2
	96	169	101	172	79	11

On twelve days of the year gales occurred; viz. in January, 4; February, 1; May, 1; June, 4; consecutively; November, 1.

On the 22d October 1839, at or near 10 o'clock P. M., two slight shocks of an earthquake were distinctly felt in several places in Stirling.

There is no rain-guage here, by which the quantity of rain might be determined.

The atmosphere of the lower part of the town being, from its trifling elevation, and from the heavy quality of the soil, somewhat humid, combines with the variableness of the weather to produce occasionally catarrh, sore-throat, influenza, and similar complaints. Typhus and scarlet fever also, from time to time, make their appearance, and prove severe; the former chiefly, but by no means exclusively, among the poor; the latter usually among the young. Small-pox, of late years, has often visited the town; and has, in many instances, proved fatal. Measles and whooping-cough, as may be expected, frequently prevail, and carry off a portion of the children of the place. Cholera prevailed to a very considerable extent in Stirling and the neighbourhood, at the time of its general prevalence throughout the island. Ninety cases were reported to the Central Board of Health, as having occurred in the town, of which fifty-nine terminated fatally. It broke out again in 1832. The cases were much fewer in number, but a larger proportion proved fatal.

In forming an estimate of the healthfulness of any place, it must always be an interesting object to ascertain the component parts and qualities of the water daily consumed by the inhabitants. The water of the public wells here is spring-water brought from the Touch hills, three miles from the town, in a pipe of two inches calibre, delivering at its maximum 19,532 imperial gallons in twenty-four hours, or, for each individual of the present population, 2.271 gallons; and at its minimum, 7812 gallons, or for each individual, .909 gallons per day, showing in seasons of drought a very inadequate supply, insufficient to preserve the cleanliness of the poorer classes, and consequently injurious to their health. It is very pure in its appearance, and its chemical analysis, discovering no other substance combined with it but muriate of lime, proves it to be really so. It is admirably adapted for domestic purposes. Besides the water supplied by the public wells, there is near the south Port, on the very verge of the parish towards St Ninians, that of the well called St Ninian's Well; on account of its having been dedicated to that saint. It is celebrated for its copiousness and purity. It is a hardish wa-

ter, but of low specific gravity, and much used for washing. It has been calculated, that, were all the water proceeding from this spring forced into the pipes that supply the town, it would afford every individual not less than 14.03 gallons per twenty-four hours. It is protected by a small building, part of which is supposed to have been a small chapel, but is more likely to have been a bath. Its temperature is very cold. It exhibits, in addition to muriate of lime, sulphate of lime, or plaster of Paris. It is, therefore, not quite so well adapted for culinary purposes as that of the public wells; yet it is not, on account of the small quantity of sulphate of lime found in it, less wholesome. It is well adapted for, and much used in, brewing. The poorer classes in Stirling inhabit generally very old houses, many of them in closes closely congregated together, and are far from being particular in removing from their neighbourhood the filth thrown from their dwellings. This must have a very injurious effect on their health. On the other hand, the immediate neighbourhood to the town of the King's Park, affording a cheerful outlet into the fresh air, and a beautiful and bracing promenade, contributes much to counteract this unhealthy influence. The high elevation, too, of the upper parts of the town, promoting a free circulation of air, tends to diminish the dampness of the atmosphere, produced by the proximity of the river and other causes in the lower parts. So that, notwithstanding some disadvantages such as those that have been mentioned, the various healthful influences with which they are combined produce, upon the whole, a salubrity so well known, as, along with the extraordinary beauty of the situation, to attract many families not connected with Stirling by nativity, relationship, or professional business, to settle themselves in it as residents. A remarkable illustration of the healthfulness of the climate may be given on the authority of the same medical gentleman* to whom I have been indebted for many of the above particulars. The number of cases of consumption which have occurred in the Stirling Dispensary since its institution down to February 11 of this year, amounts to 26; the number of all diseases to 2809. These give a ratio of 1 in 108 cases. In England the ratio, in every place where it has been determined, is much higher. In Worcester, it is 1 in 22; in London, 1 in 19; in Bolton-le-Moors, 1 in 21; in Plymouth, 1 in 32; and at the Land's End, 1 in 28. In other words, for every case of consumption that occurs in Stirling, $4\frac{1}{2}$ cases occur in the places just enumerated. The relative mortality from consumption

* W. H. Forrest, Esq.

is also very low in this town ; 21 of the cases occurring in the dispensary proved fatal, and the deaths from all diseases amounted to 252. This gives a ratio of 1 in 12 deaths. According to Sir James Clarke, the most esteemed writer on the subject, the average relative mortality is as high as 1 in 3. By others, however, it is calculated as low as 1 in 5. If we take the medium between these, viz. 1 in 4, we should have had, instead of 21 fatal cases of consumption, no fewer than 63. This induction of facts surely justifies the conclusion, that too much has not been ascribed to the highly favoured situation of Stirling, the purity of its atmosphere, and other advantages possessed by it, in reference to its general salubrity. I may be permitted to add, that, within these very few years, several individuals have dièd at the advanced ages of 88, 89, and even 90 ; and that there are some still alive, who have attained to a great age, one of whom, a female, during the last month, entered upon her 94th year.

The River Forth.—This is the only stream of water, deserving of notice, connected with the parish ; which, in some places, as has been already mentioned, it bounds ; and, in other places, intersects, by separating from the other portions of it the village and Barony of Cambuskenneth. This river, called by the Romans Bodotria, probably Latinizing, as best they could, its ancient Celtic name, respecting which nothing certain is now known, has its source from a spring in the northern side of Ben Lomond, near the summit ; traverses Stirlingshire for ten miles under the name of Duchray, augmented as it proceeds by numberless mountain streams ; then enters Perthshire, and receiving near Aberfoyle, in the river that issues from Lochard, an accession equal to the volume of its own waters, takes the name of Avondow, or Black river ; after running about five miles in Perthshire, it again joins Stirlingshire below Gartmore House, and obtains the name of Forth, which it retains throughout the remainder of its course. It is only when it approaches the immediate vicinity of Stirling, that it becomes distinguished for size and beauty. Having then received the Teith and Allan, and beginning to be swollen by the tides which affect it more than a mile above Stirling bridge, it has become both wide and deep ; and, not only by its magnitude and serpentine meanderings, forms a feature of great interest in the landscape ; but is navigable for vessels of various burden as high as the shore of Stirling. Downwards towards Alloa, it continues to be enlarged by receiving the Bannock-burn on the south, and the Devon on the north, and by the increasing influence of the

tide ; and winds its way by a tortuous course, and with extraordinary majesty and beauty, to Alloa, where it begins to lose its character of a magnificent river in that of a noble estuary. The tide rises near the Drip bridge, at the point where it is arrested by a rock crossing the channel, five feet at stream-tide ; and about four fathoms lower down near Stirling. It has certain intermissions of ebb and flow, making a kind of secondary tide. Its utility as a navigable river is much impaired by fords, or rocky shallows, occurring in certain places a little below Stirling. But vessels of seventy tons burden reach the shore. The whole course of the Forth, from its source to Alloa, where it becomes an arm of the sea, may be estimated at about sixty miles ; although the actual distance between these two points does not exceed thirty-five miles. The surface, which it drains, is estimated at 541 square miles ; and it is believed, as the result of calculations, which appear to proceed on carefully ascertained data, that the fresh water it conveys to the ocean, is about one-half of what is discharged by the Spey, and one-fourth of what is discharged by the Tay. It is thus, in point of magnitude, the third of Scottish rivers.

Geology and Mineralogy.—The rocks are of the coal-formation. They crop out within a mile of the ridge of the Castle-hill at Craig-forth on the north-west, and at Causewayhead on the north ; where they are met by the old red sandstone, which continues to Callander. Under the town and castle, and in the King's Park, which is to the south of these, the coal-formation is surmounted by greenstone, which, in a few instances, assumes a regularly formed columnar aspect. The fossil remains are marine shells. In the alluvial clay there is a stratum of vegetable matter, in which are found pieces of decayed wood, hazel-nuts, and reeds ; which seem to have been deposited by water, and which generally lie from 10 to 14 feet below the surface. This stratum extends not less than six miles near the margin of the Forth. Its breadth is unequal. It is found in some places, a mile from the river. It varies from 6 to 16 inches in thickness ; but, considering the pressure of the superincumbent mass of clay upon it, we are led to conclude that its thickness must have been originally much greater. In the coal-formation have been found thin strata of ironstone, and in the greenstone there are seen veins of calcareous spar. The alluvial deposits are clay, sand, and gravel. In some places the sand and gravel are 40 feet deep. The clay has in one place been ascertained to be upwards of 70 feet in depth. Under the gravel,

clay is also found of an unknown depth, abounding with rolled blocks. The head of a Deer or Stag, was found in the brick field to the north of the town near the river. In the lower part of the parish, as throughout the Carse of Stirling, of which it forms a part, the soil is entirely alluvial; and is believed to rest on the coal-formation. In the higher parts the soil is gravelly. The plants most frequently and peculiarly attached to the soil are furze and broom; in the King's Park, the latter only. An attempt was lately made to find coal immediately under the high ground contiguous to the Castle-hill to the north; but none was obtained worth working, at a depth of upwards of 70 fathoms. *

Zoology and Botany.—The rarer animals found in the parish are the polecat, the otter, the black-snake, and the adder. The wolf and the red-deer formerly existed in the district; but have been long extinct. The cattle, sheep, horses, &c. bred in the parish are not distinguished in any way from those that are reared in the adjoining country. In the river are found salmon, grilse, sparlings or smelts, pike, perch, trout, eels, and flounders. Of these the three first mentioned are of great importance. Salmon and grilse furnish a highly prized article of food, and constitute also a branch of profitable trade, many being exported. They come up the river to spawn in spring, and return to the sea in autumn. The sparling makes its appearance for some time in spring; and is, while it remains, a favourite article of food, especially with the lower classes.

The following rare, or otherwise interesting native plants, have their habitats on the Castle and Gowland hills, viz.—

<i>Reseda luteola</i>	<i>Anchusa sempervirens</i>	<i>Convolvulus arvensis</i>
----- lutea	<i>Sedum telephium</i>	----- sepium
<i>Oxalis acetosella</i>	----- anglicum	<i>Echium vulgare</i>
<i>Viola odorata</i>	<i>Geranium lucidum</i>	<i>Symphytum officinale</i>
<i>Chelidonium majus</i>	----- sanguineum	<i>Borago officinalis</i>
<i>Hyoscyamus niger</i>	<i>Sherardia arvensis</i>	<i>Scrophularia vernalis</i>
<i>Verbascum Lychnitis</i>	<i>Conium maculatum</i>	<i>Parietaria officinalis</i>
<i>Leonurus cardiaca</i>	<i>Pyrethrum Parthenium</i>	<i>Stellaria nemorum</i>
<i>Smyrnicum olusatrum</i>	<i>Tanacetum vulgare</i>	<i>Gallium cruciatum</i>
<i>Rosa rubiginosa</i>	<i>Carduus Marianus</i>	----- saxatile
<i>Ornithogalum umbellatum</i>	<i>Lactuca virosa</i>	

The following are found both on the hilly and lower grounds of the King's Park, viz.—

<i>Solanum dulcamara</i>	<i>Primula vulgaris</i>	<i>Spiraea ulmaria</i>
<i>Rosa spinosissima</i>	<i>Agrimonia Eupatoria</i>	<i>Saxifraga granulata</i>
<i>Prunus Pagus</i>	<i>Ranunculus Americanus</i>	<i>Caltha palustris</i>
<i>Hyacinthus non scriptus</i>	<i>Pinguicula vulgaris</i>	<i>Anthyllis vulneraria</i>
<i>Menyanthes trifoliata</i>	<i>Anagallis arvensis</i>	<i>Cardamine pratensis</i>
<i>Valeriana officinalis</i>	<i>Adiantum Capillus Veneris</i>	<i>Viola tricolor</i>

* For this account of the Geology of the parish, I am indebted to Alexander Blackader Esq., Land-surveyor.

The principal forest trees thrive well either in the rich clayey loam or alluvial soil of the lower grounds, or in the lighter soil of the higher parts. On the light sandy loam, are growing some noble specimens of the Scotch elm (*Ulmus glabra*) and beech.

II.—CIVIL HISTORY.

There is no ancient or modern account of the history of the parish ; nor am I aware, after much inquiry, of any existing in manuscript. There are two or three histories of Stirling, and accounts of its scenery, antiquities, and other objects of interest, chiefly intended as manuals to visitors. An immense number of notices, relating to the history and antiquities of Stirling, lie scattered in ancient and modern chronicles, and histories of Scotland, in Chalmers's Caledonia, Sibbald's History of Stirlingshire, and other works. Nimmo's History of Stirlingshire, edited, with many additions and corrections, by Stirling, contains most of these notices collected with much industry, and no little care and discrimination, especially by the learned editor. But it requires to be read with caution ; and there are some statements which may be corrected by a reference to the works already mentioned and to other authorities.

Stirling and its Castle.—Stirling is situated partly on an eminence which, as already stated, rising from the south-east, terminates on the north-west, in the precipitous rock on which the castle stands, and partly on the lower ground to the north-east, and south-east of this eminence ; the former being the more ancient, and the latter the more modern part of the town. Like many other places, both in Scotland, and in other countries, it has evidently owed its existence to that of the adjoining fortress, in whose immediate neighbourhood the inhabitants had been induced to build their dwellings, for the sake of the protection it afforded, in times when security could only thus be hoped for.

It is impossible to fix, with any approach to certainty, the date of the erection of Stirling Castle. There are good grounds for believing that it is of very ancient origin. Boece affirms that Agricola raised fortifications on the rock on which it stands. That the Romans had a station here, is almost certain. Their military road from Camelon to the north of Scotland is known to have passed, either close under the south-west side of the Castle-hill, or, as seems more probable, through the hollow way, which passes over the high ground immediately contiguous to it on the north, known by the name of the Ballingeich Road. There existed

in Sir Robert Sibbald's time, on a rock overhanging this road, opposite to the old gate of the castle, the following inscription: "IN EXCU. AGIT. LEG. II," supposed to intend *In Excubias agitantes Legionis Secundæ*. Boece says, that, in the latter part of the ninth century, the Northumbrian princes, Ella and Osbriht, having defeated Donald V. and taken him prisoner, followed up their victory by marching northward, and subduing all before them to the Forth and Stirling; and, rebuilding the castle, placed in it a strong garrison. He adds, that, after it had continued twenty years in the possession of the Northumbrian Saxons, it was restored by treaty to the Scots. From authentic documents, we learn, that it was possessed by its rightful masters in 975; when Kenneth III. not only maintained his authority over this part of the country, but made himself master of the extensive kingdom of Strathclyd, comprehending almost the whole of the west and south of Scotland. In the twelfth century, it had become a stronghold of great importance to the nation, as appears from the fact, that, in 1174, it was surrendered into the hands of the English by William the Lion, as one of the four principal fortresses of the kingdom, in fulfilment of the treaty, by which he was delivered from captivity in England. By this treaty, also, the English king, Henry II. was acknowledged superior of the whole kingdom of Scotland. This claim, however, was renounced, and Stirling Castle, with the other strongholds restored by Richard I. his successor. The circumstances that led to the revival of the claim of lordship over Scotland, by Edward I., and to events resulting from it of deep interest to the nation, and permanent importance to its history, are too well-known to require more than an allusion to them here; although they produced consequences, in which Stirling and its castle were, for a considerable period, more or less deeply involved. The Scottish army being, on the 28th of April 1296, defeated in an attempt to relieve the castle of Dunbar, the English speedily obtained possession of all the principal fortresses of Scotland, Stirling being of the number. On this occasion, two priests, Thomas Chaplain, and Richard Tulle, had the boldness to excommunicate Edward before his whole army; and were seized, and committed to Stirling gaol, and afterwards tried and punished. William Wallace, however, having been raised up to be the deliverer of his country, and having expelled the invaders from a large portion of it, Stirling returned into the possession of the Scots. Edward having, soon after, sent a large army into Scotland, and recon-

quered the south and west, Wallace was recalled from the siege of Dundee, by the intelligence that Stirling was again in danger. The Scottish army took up its position at or near Corntown, on the north side of the Forth ; while the English, posted at Kildean on the south, where it was crossed by a narrow bridge, prepared to avail themselves of this dangerous path to make their assault. Ere one-half of the English army had crossed, and formed on the north bank of the river, Wallace attacked and routed them ; and a panic seizing those who were crossing and preparing to cross, they fled in utter confusion ; the bridge being destroyed, say some, by a stratagem of the Scottish chiefs, according to others, by fire applied to the wooden fabric by the fugitive English. Cressingham, Edward's treasurer, who, in opposition to the better judgment of Warenne, the commander-in-chief of the army, had insisted on the attack being made in a manner so rash and unskilful, perished with thousands of his followers ; and a blow was inflicted on the English king, whose immediate result was the temporary loss of Scotland, and by which the nation was animated to a series of patriotic enterprizes and struggles, that eventually issued in the deliverance, and permanent settlement of the independence, of the kingdom. The loss of the conquerors in this memorable engagement, known in history as the battle of Stirling, and fought on the 12th of September 1297, was inconsiderable in point of numbers ; but Sir Andrew Murray, the faithful associate of Wallace, fell.

Next year, Edward having entered Scotland at the head of 80,000 men, and defeated the Scottish army near Falkirk, Wallace retreated beyond the Forth, burning in the confusion of flight the town and castle of Stirling. The castle was repaired by Edward, and made by him a place of arms ; but was besieged by the Scots the following year, and the English king's affairs in Scotland having experienced reverses that discouraged and enfeebled him, some time after, by his orders, capitulated. In 1300, after its brave garrison, under Sir William Oliphant, had sustained a siege of three months, it was recovered by the English ; who were, in their turn, three years afterwards, compelled to surrender it, when it was again entrusted to its former governor. Early in 1304, Edward, who had passed into the north by another route, approached Stirling ; and, in spite of a feeble attempt by John Comyn, the guardian of the kingdom, to dispute his passage, crossed

the Forth near Kildean, in the immediate vicinity of the scene of the conflict, which, seven years before, had proved so disastrous to his forces. He was, however, baffled in his design on the castle, which, notwithstanding the defection and treason of Comyn, boldly held out. But, being determined to obtain possession of a place so important to his interest, he laid siege to it with all the force he could employ; with all the resources he could command, even to the despoiling of the church of the lead that covered it; and with such ardour as often to expose his own person in the assault; but with a spirit withal so unbecoming a brave monarch, who ought to have honoured, if not the indomitable patriotism of a resolute defender of his country, at least the fidelity and courage of a magnanimous foe, that, when, after the most indefatigable efforts, met with the most obstinate resistance, he at length succeeded in conquering all opposition, he refused a capitulation to the garrison, and sent Oliphant to the Tower of London. The castle remained, after this, in the hands of the English for ten years. Early in 1314 it was invested by Edward Bruce, the gallant brother of the renowned King Robert, who prosecuted the siege for some months, until Philip Mowbray, who held it for the second Edward of England, agreed to surrender, should he not be relieved on or before the 24th of June.

Robert, who had been crowned in 1306, and with various success had been nobly asserting the independence of Scotland, although much dissatisfied with such a covenant, had nevertheless given his sanction to the truce. Meanwhile the greatest host which had ever entered the country, having been marched northward by Edward II., for the relief of the contested fortress, arrived in the immediate neighbourhood of Stirling, where it was met and intercepted by Bruce at the head of his small, but brave, band of patriots. On the 23d of June, a fine body of 800 English cavalry was pushed forward, but in a circuitous direction, so as to pass round the flank of the Scottish army, to attack and dislodge the besiegers. Bending eastward by the low grounds on the edge of the carse, they succeeded in eluding observation until they had actually passed the left flank of the Scots,—when, being discovered, they were pursued by Randolph, Earl of Moray, with 500 horse, who intercepted their attack, and, assailing them on the ground now occupied partly by the modern suburb of Stirling, called Southfield, and the villas of South Lodge and Randolph, Feld in the parish of Stirling, and partly by the northern end of

the village of Newhouse, in that of St Ninians, inflicted upon them, with the loss, it is said, of only one man, a complete defeat, with great slaughter. From this decisive conflict, which had a powerful influence in leading to the great result of the general action of the following day, the ground, which formed probably the centre of the struggle, obtained the name of Randolph Field; and two stones, one of which still remains within the wall separating it from the public road, and near the gate of the avenue leading to the mansion-house, were erected in its commemoration. The famous battle of Bannockburn, which decided the long depending contest for the claim of the English monarchs to the sovereignty of Scotland, and finally established the independence of the kingdom, but whose details do not belong to our subject, its scene lying within the parish of St Ninians, of necessity produced the immediate evacuation of Stirling and its castle by the English governor; who entered into the service of the Scottish king, while the garrison, agreeably to the terms of the previous agreement, were suffered to pass unmolested into England.

From this period, no event of national importance took place here till the reign of James I. On the 24th and 25th of May 1425, Murdoch, Duke of Albany, who had been regent of the kingdom during the captivity of this prince in England, Duncan, the aged Earl of Lennox, his father-in-law, and Walter and Alexander, his sons, were beheaded on a small mount in the neighbourhood of the castle. This eminence forms part of the Gowland hill, lying to the north of, and separated from, the castle by the hollow way already mentioned, called the Ballengeich road; and is the most northern extremity of the hill, looking down upon the plain below. It is surrounded by a kind of parapet, and has on it the remains of artificial works; from which appearances, combined with its name, the *Mote Hill*, it seems to have been at a very early period the place where councils of the chiefs were held, and justice was administered. It is also known by the name of the *Hurly-Haaky*, probably from its being the scene of a childish sport, known to have been practised at a later time. These executions took place by authority of a parliament held in the castle, in which James presided, and by the verdict of a jury of twenty-one members formed out of that body. This severe measure, if demanded by considerations of state necessity, which it is somewhat difficult to collect from the researches of the historian, but which were probably connected with the overgrown power of a fa-

mily whose influence endangered the security of the throne, appears at any rate to have been dictated more by policy than by justice. Here also, in 1437, took place the more righteous execution of Sir Robert Graham and several of his associates, for the assassination of this able and accomplished, but ill-fated prince, in the convent of Black Friars at Perth. In the castle itself, in 1451, James II., assisted by Sir Patrick Gray, captain of his guard, and in the presence of a few members of his council, perpetrated the murder of the Earl of Douglas; an act, which, however he might esteem it necessary for his own protection against the enormous power and perhaps dangerous designs of that baron and his retainers, has justly fixed an indelible stain upon his memory. This took place in a small room, or rather closet, known by the name of the *Douglas Room*, in the north-west corner of the building, where were then the royal apartments, and which is now the residence of the governor. The third James, who was distinguished by peaceful tastes, and literary and other accomplishments, in advance of the barbarous and turbulent age in which he reigned, resided frequently in the castle. Besides repairing and embellishing such parts of this favourite residence as had gone into decay, he erected in it several new and handsome structures. One of these was the Parliament House, containing a fine hall, 120 feet in length, and other suitable accommodations, which was a noble and magnificent fabric, but which is now occupied by mess-rooms and other apartments for the garrison, and although in good preservation, is much deteriorated, both in its external and internal appearance. Another was the Chapel royal; which, however, James VI. demolished, erecting on its site the present building; part of which is now occupied by the armoury, the remainder, after many years' disuse in this character, having been within these few weeks restored to its sacred purpose as a chapel for the staff and garrison. The Palace, now converted into barracks for the soldiers, was begun by James V., and finished by Mary. It is all in hewn stone, in a singular style of architecture, neither Grecian nor Gothic; emblematical figures standing on wreathed balustrade pillars on pedestals supported by grotesque figures, under something like Gothic arches, and in pediments of the windows. Two of these are said to be figures of James and his daughter. Some of them have been removed. The form of the building is square, with a court in the middle, where the King's lions are said to have been kept, still known by the name of the Lions' Den. It contained

many large and elegant apartments ; one of which was a hall covered with an oaken roof of exquisite workmanship, ornamented with a great number of carvings of heads, which, in 1777, when Nimmo wrote, were not much decayed, but which have now, for several years, been removed, and lie scattered in various hands. Masterly etchings of them were, some time since, executed by Mr Lizars of Edinburgh, and published there under the title of *Lacunar Strivilinense*, to which I refer the antiquary.*

The Scottish kings often held their court and parliament in the castle. But it did not become one of the stated royal residences till the family of Stewart had mounted the throne. The second and fifth Jameses were born in it. Here James V. was crowned ; as was Mary also, when scarce nine months old. James VI. was conveyed hither from Edinburgh soon after his birth ; and, on the 15th of December 1566, when nearly six months old, baptized with great pomp, in the presence of many of the nobility and gentry, and of ambassadors from England, France, and Savoy ; Elizabeth sending as a gift a font of gold, weighing a couple of stones, which was used on the occasion. After Mary's resignation of the throne in 1567, the nobility, gentry, and burghers of the kingdom met at Stirling on the 23d of July, and, having walked in procession to the Town Church, after sermon by John Knox there, with the usual ceremonies, set the crown on the head of James, then about thirteen months old. The infant king was conveyed back to the castle in the arms of the Earl of Mar. The castle continued to be the residence of this prince during his minority. His education was conducted by George Buchanan and three other preceptors. The apartment occupied by the royal pupil and his celebrated instructor as a school-room, is on the south-eastern side of the palace, and is approached by a stone stair on the outside of the building, and without the gate leading into the inner court of the castle. Associated as it is with a circumstance of so much national interest, good taste might suggest its being kept in a state in which, when visited by strangers, it would appear more worthy of its history. In Stirling Castle, James held, in 1578, his first parliament, after taking into his own hands the reins of government. And here the infant prince, Henry, born to him of his queen, Anne of Denmark, on the 19th of February 1594, was baptized on the 30th of August following, with still

* There is a copy in Stirling Library.

greater magnificence and show than had distinguished his own baptism, and with a variety of childish but very costly pageants, that threw into the shade, both in number and in pomp, the similar exhibitions, which, in his own infancy, had desecrated the divine ordinance.

Before leaving the more ancient portion of the history of the castle and town of Stirling, which, down to the date we have now reached, were in a great measure identified, the latter deriving from the former its chief importance, and usually following its fortunes, some places may be noticed, interesting from their association with the early times, when this intimate connection and dependence subsisted. There is, immediately under the castle on the south-east, but still on the lofty ground of the castle-hill, a level inclosure of about an acre in extent, called the Valley, where jousts and tournaments and other sports and feats of chivalry used to be exhibited for the entertainment of the royal family and court. Immediately adjoining is a small rocky eminence on the very edge of the hill, and not only commanding a view of the valley, but looking down also upon what was the royal gardens close under the castle-hill to the south, and a little farther off upon the slightly elevated table-land of the King's Park, and gently rising eminences by which it is girdled in from the fertile and magnificent plain beyond. From this spot, which is called the Ladies' Hill, the ladies of the place enjoyed a bird's-eye view of the sports engaged in by the court in the gardens, and might witness also the occasional military arrays and encampments, and other spectacles in the King's Park, which the royal residence and the natural importance of Stirling Castle must have produced, and which, we have reason to believe, did actually grace the scene. Within the space formerly occupied by the royal gardens, is a very remarkable piece of antiquity, known by the name of the King's Knot, consisting of a central mound in the form of a table, surrounded at the distance of a few feet by another in the form of a bench, of nearly equal height, and again at a greater distance by a kind of low esplanade, and this once more by what appear to have been canals or ditches. Here was the scene of various sports, one of which, frequently practised, was that called the Knights of the Round Table. From the authority of authentic historians and the best antiquaries,* this singular structure is known to be of very

* See William of Worcester, *Itinerary*, p. 311; Barbour in his account of the Battle of Bannockburn; Gough's edition of Camden, Vol. iii., and Caledonia, Vol. i. pp. 244, 245.

great antiquity ; and is to be traced up to a period when admiration for the real or imaginary exploits and institutions of the celebrated King Arthur led to the commemoration of him in many parts of the island by this and other modes of perpetuating his fame, and when in Scotland, in particular, his name was given to an immense number of objects, natural and artificial, many of which in different districts still retain it.

All the different localities I have mentioned in connection with the castle, viz. the Royal Park and gardens, the Ladies' Hill and valley, the Ballingieich Road, and the Gowling Hill, as well as a few houses in the higher portion of that part of the town of Stirling called the Castle-hill, make up, with the castle itself, the Constabulary, the whole of which is comprehended within the parish of Stirling, there being no extra-parochial territory in Scotland. The castle is under the government of a lieutenant-governor and a deputy-governor. In 1360, Sir Robert Erskine of Marr was appointed captain or governor by David II., from which time the office appears to have continued, with little interruption, hereditary in the family till the Earl of Marr's forfeiture in 1715. The present lieutenant-governor is General Sir Martin Hunter, and the deputy-governor, Colonel Sir Archibald Christie, who, since his appointment, has resided in the castle. Along with him, a fort-major, a store-keeper, who is also acting barrack-master, a barrack-sergeant, and a master-gunner, form the resident staff. There is a garrison, which consists of the depot of one of the regiments of infantry, usually amounting to from 250 to 300 men. For the religious instruction of the staff and garrison, with their families, a chaplain is provided by Government. Down to 1835, it had been the practice, for a considerable time, to give this appointment to one of the parochial ministers of Stirling, or even to the minister of a parish at a distance from the place, converting the office into little better than a sinecure. A better system is now acted upon. The chaplain has no other office to withdraw him from his duties in the castle. The present chaplain is the Rev. Robert Watson. The rural portion of the Constabulary, which is under the management of the Commissioners for Woods and Forests, is let on lease, with a servitude, by which the race-course is preserved from being turned up by the plough, and with a reservation of 73.3 acres, 47.8 of which are in the King's Park, and 25.5 in the Gowling Hill, whensoever the commissioners may think proper to plant them with trees. This would be a great improvement in respect

of ornament to these places, as well as beneficial to the royal demesne.

Considering the remote antiquity of the castle, we may conclude with great confidence, that the nucleus of the town would be formed at a very early period. Indeed, the existence of the burgh at a date antecedent to 1120, and its early importance, which we shall have occasion afterwards to show, demonstrate this. The higher portion of the adjoining declivity would be gradually covered with houses ; and at a subsequent period, while the monarchs frequently resided, and held their courts, in the castle, many of the nobility and gentry of the kingdom would be attracted to reside in, and would give a rapidly growing importance to, the town. The existence of Marr's work, erected in 1570 by the Regent of that name, and the traditions that prevail on good authority respecting one or two very old houses, and the sites of several modern ones, chiefly in or near to Broad Street, illustrate the probability of this account of its earlier history. That the residence of the kings of the Stewart family, and the occasional meetings of parliament, and similar circumstances, conferred upon it a distinction, which occasioned a rivalry with Edinburgh for metropolitan supremacy, is well established ; and it is said, that the title of the latter to be regarded as the capital of the kingdom was only settled by the accident of its chief magistrate being able to anticipate the provost of Stirling, in taking precedence of all the other burghs at some public procession, or festive entertainment. It does not appear, however, to have been a place of any considerable trade ; and its population, down to about the middle of the last century, does not seem ever to have exceeded between three and four thousand inhabitants. The following notices of events of historical importance may be given.

It was here that the reforming preachers, Paul Methven, John Christison, William Harlaw, and John Willock, were summoned by the Queen Regent to stand their trial before the justiciary court, on the 10th of May 1559, for disregarding the proclamation forbidding them to preach what she called heresy, and, as she pretended, exciting tumults and seditions among the people. This summons having been, after much tergiversation and treachery on her part, peremptorily renewed, brought on the crisis, to which the affairs of the Reformation in Scotland had been for some time evidently tending. The nobles and gentlemen who had embraced the Protestant doctrines mustered in force for the protec

tion of these reformers ; and the people in various places openly declared themselves on their side, and threw off the yoke of Popery. Stirling was one of the first towns to follow the example of Perth and St Andrews in abolishing the Popish ceremonies ; overthrowing the monasteries ; destroying the instruments of idolatry ; and setting up the Protestant worship. The same year, the Lords of the Congregation took possession of Stirling, in order to prevent the purpose of the regent to introduce a garrison of French soldiers, with the view of stopping their passage across the Forth. On this occasion, the Abbey of Cambuskenneth, and the convents of Black and Grayfriars were demolished by them. In the month of August, the reformers here entered into their third bond of mutual defence. In 1569, four priests of Dunblane were, by order of the Regent Murray, chained to the market-cross, where they stood for an hour with their vestments, books, and chalices, for having said mass contrary to Act of Parliament. On the 1st of April 1571, John Hamilton, who had been Archbishop of St Andrews, and Primate of the kingdom, and who had been a particular friend of Queen Mary, and had officiated at the baptism of James, her son, was executed for high treason ; one of the articles of charge, viz. that he knew, and was participant, of the murder of the Regent Murray, being acknowledged by himself, with expressions of deep sorrow. In 1571, a parliament being held in the castle by the Earl of Lennox, the king's grandfather, then regent, the town was surprised at four o'clock in the morning of the 4th of September, by the Earl of Huntly and his faction, with 300 horse and 80 foot soldiers ; the houses and lodgings of the chief nobility surrounded, and the regent, with ten other noblemen, made prisoners and carried off in triumph. The only one who could make resistance was the Earl of Morton, who did not surrender till the house he occupied, which stood at the east end and south corner of Broad Street, was set on fire. The enterprise was eventually defeated, and the captive noblemen recovered, by the Earl of Marr, but not till the regent had been mortally wounded. He died in the evening, and was interred in the Chapel Royal. Calder and Bell, two of Huntly's party, of whom twenty-six were taken prisoners, were executed two days after in Broad Street. During Lennox's regency, the Court of Session for some time held its sittings here. And the General Assembly of the Church met here in August 1571, and in June 1578. In 1584, the Earls of Angus and Marr, the Master of Glamis, and others who had been

concerned in the Raid of Ruthven, took possession of the town and castle. Being obliged to flee into England, they remained there till next year, when they returned with a larger force, and again took possession of the town. When they were preparing to invest the castle, which was not in a state to hold out against them, James sent commissioners to treat, and the result was their pardon, the reversal of their forfeiture, their restoration to the king's confidence, and their elevation to offices of public trust. This expedition was called the Raid of Stirling. Upon the ferment at Edinburgh in 1637, from the introduction of the liturgy, the Privy-Council and the Court of Session were, by royal mandate, removed to Stirling, and continued for several months. The liturgy was proclaimed at the cross. The Earl of Home, with a great number of barons, ministers, and burgesses, entered a public protestation against it; and in the evening, the town was taken possession of by 2000 armed men on the part of the Presbyterians. They all left the place, however, on the following day, to join their friends in Edinburgh. In 1645, a pestilence having entered Scotland from the south, the parliament removed from Edinburgh to Stirling, but, being followed by this dreadful enemy, retired to Perth. It raged here from the middle of July till October. The town-council held their meetings in the open field, near to what is now called the inclosure. Tents were erected for the sick on Sheriff moor lands, north of the bridge. Cleansers were appointed for the different quarters of the town, and a spot of ground near St Ninian's Well was allotted for the burying of the dead.

In 1648, when "*Duke Hamilton's Engagement*," as it was called, had been entered into, the Marquis of Argyle and others raised a considerable force, with a view to bring about its renunciation by the estates of the kingdom. Argyle occupied Stirling; but while he was at dinner with the Earl of Mar in the Castle, the small body of Highlanders he had stationed at different posts, were surprised; many of them were cut in pieces, the rest surrounded. He himself effected his escape. In 1650, after the defeat of the Scottish troops at Dunbar by Cromwell, Stirling became the rendezvous of the Committees of Church and State, the Magistrates of Edinburgh, and the remains of the army. A Parliament, the last held in Scotland in which the sovereign personally presided, met here, but adjourned to Perth. In consequence of their deliberations, an army was collected at Aberdeen, and thence marched to Stirling, and afterwards encamped at Torwood. After a varie-

ty of manoeuvres, Charles, who commanded in person, was obliged to retreat before Cromwell, and encamped at Stirling, in the King's Park. Cromwell in his turn having retreated into England, and being followed by the King, defeated him in the memorable battle of Worcester. Soon after Charles's departure from Stirling, General Monk, who had been detached by Cromwell with a strong body of men, arrived at Stirling; took possession of the town, and proceeded to besiege the castle. He erected batteries on the Tower of the Church and on the adjoining burying-ground; and thus succeeded in reducing the fortress. The ornamental parts of the palace, and the church tower, still bear marks of the mutual cannonading. It was on this occasion that the national registers, which had been lodged in the castle as a place of security the preceding year, were seized and removed to the Tower of London; whence being conveyed by sea at the Restoration, they were lost in a storm. In 1715, the Duke of Argyle, before proceeding to fight the battle of Sheriffmuir in the neighbourhood of Dunblane, encamped here in the King's Park. In 1745, the walls were repaired, probably with a view to its protection from the Pretender's forces. On the return of his army, however, from England the following year, the town being found untenable against him, he was admitted on terms which, it is said, were immediately violated by his men; who pillaged the houses and shops of those who were known to be most opposed to them. He invested the castle; erecting batteries on the Gowling hill in the space between the church and Mar's work, and on the Ladies' hill; and would have succeeded in forcing it to capitulate for want of provisions, had he not been compelled by the approach of the Duke of Cumberland to retire from the neighbourhood.—One other event may be noticed as of more than local interest. This was the execution of Baird and Hardy for high treason in 1820, after the absurd rising which took place under the excitement of Radical agitation, goaded on by scarcity of work and want of the means of subsistence amongst the operatives; and which terminated in the defeat at Bonnymuir. They were beheaded in Broad Street, in front of the Townhouse; and buried in the church-yard.

Burgh of Stirling.—On an ancient seal of the corporation was a wooden bridge; on one side of which were English soldiers appearing to attempt the passage, on the other, Scottish in the attitude of opposing them; with the legend "*Hic armis Bruti, Scoti stant hic cruce tuti*;" all which seems probably to have been in-

tended to commemorate the successful defence of the bridge at Kildean by the Scottish army at the battle of Stirling. But, whatever may have been indicated by the engraving on this seal, the origin of the corporation is of a much earlier date. The most ancient charter of the burgh in existence was granted by Alexander I., and is dated at Kincardine, August 18, 1120; and even this is not a charter of erection, but only confers additional privileges. At what period the erection took place cannot now be ascertained. Stirling is the fourth burgh in the historical order in which such corporations appear in Scottish annals; those which precede it being Edinburgh, Berwick, and Roxburgh. Along with these, it was one of "*the Court of the Four Burghs*," a kind of Commercial Parliament, instituted, it would seem, by David I., and invested with great powers in all matters of trade; which was by James III. changed into "*the Convention of Royal Burghs*." This court appears to have had its meeting in Stirling as early as 1405. In 1454, it was transferred to Edinburgh. The register of sasines of the burgh commences in 1473; the Council Records in 1597. In 1773, by a decision of the Court of Session, affirmed by the House of Lords, the election of magistrates and councillors, made at Michaelmas of that year, was, owing to some corrupt influence employed, declared null and void; and the privileges of the town as a corporate body, were for a season annihilated. In 1781, on a petition of the inhabitants, they were restored by the Crown with some alterations in the set or constitution of the burgh. This new set continued, until superseded by the Municipal Reform Act of the 28th of August 1833, according to which the owners or occupiers of houses of the value of £. 10 annually, elect the councillors, in number 21; the councillors elect from among themselves a provost, four bailies, a dean of guild, and a treasurer. One-third of the councillors retire annually, according to a prescribed order; the provost and treasurer being, however, excepted, who remain in office three years. The election of councillors takes place on the first Tuesday of November; that of the magistrates, &c. on the Thursday following. The town-clerk cannot be a member of the council. By an Act of Parliament in 1437, various burghs were appointed to keep the standard measures for liquid and dry goods, from which all others throughout the kingdom were to be taken. To Edinburgh was committed the ell; to Perth the reel; to Lanark the pound; to Linlithgow the firloft; and to Stirling, being at that time the principal market for distilled and fermented

liquors, the pint. The Stirling Jug, as this pint measure is called, is kept with great care in the council-house in Broad Street, where the magistrates and councillors hold their meetings. This Jug was for a time amissing; and after a very curious and sagacious search by the Rev. Alexander Bryce, minister of Kirknewton, was discovered in a tradesman's shop in the town. It is made of a kind of brass or yettlin, in the shape of a hollow cone truncated, and weighs nearly 15 lbs. Scottish Troy. The magistrates have, to a certain extent, a civil and criminal jurisdiction. For the government of the town, it is divided into four districts or wards, over each of which a bailie presides. They have four officials called town-sergeants for preserving the public peace; in which they are more effectively assisted by a regularly organized body of high constables. The officer at the head of the county police has his station here. The revenue of the burgh is derived from the customs at the Bridge and Port, the markets, the shore, and the fisheries; and averages about L. 2300 per annum. The custodier of this revenue is the Chamberlain, generally a respectable legal practitioner in the place, who is really the Treasurer, the other being so only in name. The charges upon this fund are ministers' stipends; salaries to schoolmasters; lighting the streets; supplying water; repairing and renewing the streets; and keeping up the jail, supplying necessaries to the inmates, and paying the salary of the jailor. In this last item, the county of Clackmannan aids to a trifling amount; the county of Stirling not at all. The Town-house in Broad Street is the property of the burgh; a large and handsome building, with a lofty and beautiful steeple, containing a clock, a fine deep-toned bell, and musical bells, which play a tune immediately before the striking of each hour. In this building the council hold their meetings; as also the sheriff, the county gentlemen, and the Lords of Justiciary in their circuit, their respective courts.

Modern Improvements and present condition of the Town.—From various circumstances there is reason to believe, that Stirling had been nearly stationary in extent, population, and general condition, from about the time of the Reformation down to nearly the middle of the last century. To the castle it had been indebted for its birth, and to the Court, for the magnitude and importance to which it had attained; and when the latter was withdrawn, and the former ceased to exercise any influence upon its fortunes, the impulse

given by the Reformation, followed by the gradually increasing peace and civilization of the country, and industry of the people, while they contributed to the progress and enlargement of other towns, served in a great measure to counteract, in the case of Stirling, what must have been otherwise felt to be a heavy loss. These counteracting influences, however, while they prevented any considerable decay, were insufficient to effect any improvement, in so far as size and general appearance were concerned. But when the influence of the union of the kingdoms began to be developed, which was not, at least in this part of the country, until after the suppression of the two rebellions in favour of the Stewart family, and abolition of the hereditary jurisdictions belonging to the feudal barons, Stirling again started forward in a course of improvement, which has never been arrested, but, on the contrary, appears to be becoming more and more distinguished, and to keep pace with the general progress of the country. Since that time, it has been greatly extended; and a rapid advance has been made in many particulars, which mark the growing prosperity and comfort of the community. During this interval, the population has more than doubled. New and handsome streets have been built. Old houses have been replaced by new, in many instances; in others, have been modernized and beautified. Many excellent dwelling-houses and splendid shops, and elegant suburban villas, give an air of wealth and comfort; the streets have been lighted with gas of first-rate quality; and the municipal rulers have, within the last seven years, by improving the streets, immensely added to the beauty of the town, and to the safety and accommodation of the inhabitants, and rendered it greatly more attractive to the numerous strangers who visit it for business, health, or amusement. One of the most pleasing and beautiful ornaments of the town, however, not only contributing to its embellishment, but providing for the healthful recreation of the inhabitants, and enabling them to contemplate the enchanting prospects by which it is surrounded, the "Back Walk," is of older date, although belonging to the modern history of the place. It was begun in 1723 by Mr Edmonstone of Cambus-Wallace, and from time to time extended, until completed, towards the end of the last century. Commencing in the south-east part of the town on the outside of the hill, it gradually rises through a grove of tall and luxuriant trees, and then by the naked and rocky edge of the hill, till it attains near to its summit under the castle, and proceeding to skirt the lofty emi-

nence, terminates on the Mote hill or Hurly-Haaky. From its gradually increasing elevation, the magnificent landscape by degrees discloses itself to the eye, and is beheld to very great advantage. There is only one point from which it can be seen to greater; that is in the governor's garden, on the north-western verge of the castle grounds, where the whole may be viewed as one glorious panorama.

Stirling is the county town of Stirlingshire. The sheriff-substitute for the western district resides here; and, as well as the sheriff of the county, holds courts for civil and criminal causes. The circuit court of justiciary holds its meetings here in April and September for the counties of Stirling, Clackmannan, and Kinross. It is the seat of a presbytery, and, along with Perth, is also the alternate place of meeting of the synod of Perth and Stirling, which convenes here on the third Tuesday of April, and at Perth on the third Tuesday of October.

There are no maps, plans, or surveys of the parish. Plans of the town have been made for various purposes, but throw very little light on its ancient history. There are no letters, papers, pictures, or other documents, so far as I have been able to discover, in the possession of any resident individual, tending to illustrate the biography, history, or antiquities of the parish, with the exception of one ancient painting, and three engravings probably of the reign of William III., in the possession of J. Lucas, Esq.

Eminent Persons connected with the Parish by birth or otherwise.

—Of these the most remarkable was the celebrated George Buchanan, one of the best classical scholars in modern times; as his History of Scotland, whatever may be the weight which it is entitled to as an authority, his translation or rather paraphrases of the Psalms, and several other poetical works, all of which are composed in Latin, distinguished for purity and elegance, abundantly demonstrate. He was the third son of Thomas Buchanan of Moss, on the western bank of the Blane in Stirlingshire, where he was born near the beginning of February 1506. His father died early, leaving his wife and eight children in indigence. He was enabled, however, by the assistance of a maternal uncle, to go to study at Paris about 1520. He afterwards served in an expedition against England. At eighteen, he went to the University of St Andrews. Returning to France he studied at the Scots College, where in 1528 he obtained the degree of Master of Arts. About this time, he embraced the doctrines of Luther; notwithstanding of which,

he obtained a professorship in the College of St Barbe, where he taught grammar for three years. Returning to Scotland in 1537, he made to himself enemies of the Popish party by some of his writings; and, although for some time patronized by James V., was at length exposed to their resentment, and was only saved from destruction by escaping from a window in the Castle of St Andrews. He was Professor of Latin at Bourdeaux for three years; and a regent in a college at Paris for about the same time. He became afterwards a professor in a newly founded college at Coimbra in Portugal, where he was persecuted by the monks. He again obtained a regency in a college in France, where he was highly honoured, and remained for several years. In 1562, he had returned to Scotland; and next year, during the month of April, he read with Queen Mary, then in her twentieth year, a portion of Livy every afternoon. In 1564, she conferred upon him the temporalities of the Abbey of Crossraguel; and two years after, he was appointed, by the Regent Murray, Principal of St Leonard's College in the University of St Andrews. He lectured on Theology; was repeatedly a member of the General Assembly; and, in 1567, although not a minister, yet, in his character as a Professor of Divinity, at a period when the imposition of hands had not been introduced into the Reformed Church of Scotland, was moderator of that court. Being, about 1571, called to superintend the education of James VI., he resigned his principality at St Andrews, and came to live in Stirling. He resided in a house in the Castle-Wynd, on the left hand proceeding up the street, which he is said to have erected. This house, interesting both from its association with the name of this illustrious Scotsman, and from its ancient form, which imparted a sombre dignity to the narrow street, and harmonized beautifully, when seen in a particular direction, with the majesty of the large and lofty cathedral-looking church beyond, was a venerable relic of antiquity. It was taken down only six years ago. Besides being commendatory abbot of Crossraguel and principal preceptor to the King, Buchanan was lord-keeper of the privy-seal, and, *ex officio*, a Member of Parliament. He died at Edinburgh on the 28th of September 1582, in his 77th year, and was interred there in the Grayfriar's Church-yard.

The most eminent individual, as a statesman and warrior, was John Erskine, sixth Earl of Mar of the name of Erskine. He was appointed by James V. Commendator of Cambuskenneth and

Inchmahome; and invested by Mary with the hereditary prefecture or captainship of Stirling Castle; which latter office, however, had been from 1360 chiefly in the family. His name and seal appear at the deed of Mary's resignation of the kingdom. On that event, he was entrusted with the keeping of the young Prince. On the 5th of September 1571, when the Earl of Lennox had been slain by Mary's faction, the defeat of whose enterprize was chiefly owing to his gallantry in hastening from the castle to assail their retainers, he was proclaimed Regent of the kingdom. After discharging this high and arduous office in troublous times for a year, he died, still a young man, in 1572. His son, and successor in his titles, and in the office of governor of the castle, had been a fellow pupil of James, under the tuition of George Buchanan; and was entrusted by him with the education of Prince Henry. The building at the upper end of Broad Street, known by the name of Marr's Work, which has long been a ruin, but which still retains traces of elaborate and costly architecture, and, when entire, must have been a magnificent edifice, was erected by this distinguished person. There are still to be traced upon it some quaint inscriptions. Here he resided with great splendour, during the brief period of his occupancy. The date 1570 probably determines the time of its completion. This was the year preceding his appointment to the regency; and only two years before his death. The stones in great part were taken from Cambuskenneth Abbey. While this palatial residence was in the possession of Annabella, the Regent's widow, it was occupied for a time in 1593 by James and his Queen, until their own palace in the castle was made ready for their reception.

No individual connected with Stirling is better entitled to a memorial in its parochial statistics, than the Rev. James Guthrie. This noble martyr for Christ's crown and cause was the son of Guthrie of Guthrie in Forfarshire; and was educated at the University of St Andrews, in which he afterwards for some time taught philosophy; and where he gave abundant proof, that he was an exact scholar and excellent philosopher; and so highly distinguished himself, "that," says an Episcopalian writer of the day, "if he had continued fixed to his first principles," which were antipresbyterian, "he would have been a star of the first magnitude." While at St Andrews, by conversation with Samuel Rutherford and others, and by a careful study of the subject, he was led to embrace those principles, which he maintained to the end. He

was, for some time, minister of Lauder in Berwickshire ; from which he was translated to Stirling in 1648. In 1650, he preached against certain resolutions of the Commission of the General Assembly, as involving the church and nation in an approval of those, who were disaffected to the solemnly approved and ratified ecclesiastical establishment. In February 1651, he was summoned by the chancellor to appear at Perth, and answer before the King and Committee of Estates, for the doctrine he had preached, and for a letter he had written to the Commission of Assembly, remonstrating with them on the same subject. On the 22d of that month he appeared, and gave in a protestation against the authority of the king and his Estates, to take trial of his doctrine, and to be his judges, as to matters for which he was answerable to the ecclesiastical courts only ; while he submitted himself to their jurisdiction in all matters of a civil nature. He was kept in prison at Perth, till the 28th of the same month ; when he again appeared before the King and the Committee of Estates, and gave in a similar protestation. At that time he was dismissed, and the matter was no farther proceeded with. But, ten years afterwards, when Charles had been restored, and the determination was adopted to crush the Presbyterian Church, and assert the royal supremacy in all causes, spiritual as well as civil, upon the same grounds, as well as for being, as alleged, the author of a publication entitled “ *The Causes of God’s Wrath,*” he was seized and imprisoned, and brought to trial before the Parliament in Edinburgh. He defended himself with such eloquence, knowledge of law, and strength of argument, as utterly amazed his friends, and confounded his enemies. But he had been the leader of the protestors ; his death might strike terror into that party, and induce them to yield ; and he had pronounced sentence of excommunication, many years before, against the Earl of Middleton, the chancellor, for which that vindictive nobleman sought to be revenged. He was therefore found guilty of high treason ; condemned to suffer death ; and hanged on the 1st of June 1661, at the cross of Edinburgh. In pursuance of his sentence, his head having been separated from his body, was fixed up on the Nether-Bow Port. After it had remained thus a public spectacle for about twenty-seven years, Mr Alexander Hamilton, then a youth at the College of Edinburgh, took it down at the peril of his life. Thirty-eight years afterwards, this same Mr Alexander Hamilton succeeded him in the ministry at Stirling ; where he proclaimed the gospel from the

same pulpit for twelve years, his decease taking place in January 1738.

The *Rev. Henry Guthrie*, author of *Memoirs of Scottish Affairs*, from 1627 to the death of Charles I. in 1649, was minister of Stirling about the period to which his work relates. Being thrust out from his charge by the Commission of the General Assembly, for malignancy, he resided for a considerable time at Kilspindie, where he probably prepared his memoirs. It appears from the Council records, that upon the vacancy occasioned by the arrest and execution of Mr James Guthrie, his successor, he received repeated invitations from the patrons* to return to his ministry in Stirling, but declined them on the plea of ill health. Having conformed to Prelacy, he became afterwards Bishop of Dunkeld.

A native of Stirling, of the name of Edmond, the son of a baker, born, it would appear, towards the end of the sixteenth century, having run away from his parents, and enlisted in the service of Maurice, Prince of Orange, so greatly distinguished himself as to rise to the rank of Colonel. Having acquired considerable wealth, he returned to reside in, and distinguished himself as a benefactor to, the place of his birth. A plate, in addition to that which received the usual weekly collections for the poor, was for some time placed at the church door, that such as were able, and willing, might put into it their contributions towards the erection of a manse for the minister. A donation was given by Colonel Edmond so munificent, that it appears to have been equal to, if not greater than, all the rest of the amount obtained by this collection. The manse thus built, stood at the junction of Church Street and St John's Street, not many yards from the south-east corner of the church; the site being still plainly indicated by the state of the ground. It was taken down in 1824, and contained till that time some books, of which Mr Guthrie had been the custodier, and his chair; both of which had been carefully preserved by his successors in the first charge. The chair is now in the library room of the School of Arts. The following anecdote is related of Colonel Edmond. When on the Continent, being on the parade with several brother officers, he was accosted by a stranger, who professed to have newly come from Scotland, and left the Colonel's relations well, enumerating several of high rank. Edmond, turning from him indig-

* This, however, they did with great reluctance. It was not their own wish they were expressing; but that of the then ruling powers, using influence with them, to which they found themselves constrained to yield.

nantly, informed the circle, that, however this unknown person might flatter his vanity, he must in candour tell them, that he had the honour, of which he should ever be proud, to be the son of an honest baker and freeman of the ancient burgh of Stirling. He then ordered the abashed impostor out of his sight. He would not visit in Stirling, unless his father and mother were invited. The Earl of Marr, son to the Regent, and himself Lord High Treasurer of the Kingdom, asked him to dine or sup. Edmond agreed on the fore-mentioned condition; and, thus happily escorted by the aged pair, did the gallant Colonel wait upon his illustrious entertainer.

The excellent Christian soldier, Lieutenant-Colonel John Blackadder, son of a faithful minister, who, during the time of persecution, after the restoration of Charles II., suffered long for his adherence to Presbytery, and endured a distressing imprisonment on the Bass Rock, falls here to be mentioned. He was not more distinguished for his personal bravery and military accomplishments, than for his private worth and devoted piety. After serving many years on the continent, under the Duke of Marlborough, in command of the celebrated Cameronian Regiment of Infantry, he was appointed Deputy-Governor of the castle, where he closed his life in August 1729, at the age of 65.

The Rev. Ebenezer Erskine, whose name is associated with a deeply interesting event in the history of Scotland, the rise of the Secession from the Established Church, somewhat more than a century ago, was for several years minister of the third charge of Stirling. His grandfather, Ralph Erskine, descended from the family of Marr, had thirty-three children; of whom Henry, Ebenezer's father, was the youngest, and was born at Dryburgh on the Tweed, in the parish of Merton, in Berwickshire. Henry Erskine was one of the most eminently pious and deeply experienced ministers of his day; and passed through a long course of remarkable vicissitudes and heavy trials, which render his biography highly instructive, as well as full of extraordinary interest. He was minister at Cornhill in North Durham; whence he was ejected in 1662. After various changes of place and circumstances, he became, under King James's toleration, on the call of a number of Presbyterians at or near Whitsome, a few miles from Dunse, in his native county, pastor of a congregation, which assembled at Rivelaw, in that parish; where he continued till the Revolution, when he became minister of Chirnside, in the same district. Here he died in 1696, aged 72. His second son,

Ebenezer, was born June 22, 1680, and most probably at Dryburgh. He was educated at the University of Edinburgh; became chaplain to the Earl of Rothes; was licensed as a probationer for the ministry, February 11, 1703; and ordained minister of Portmoak, within the bounds of that Presbytery, on the 22d of September following. His fidelity, and other ministerial gifts, recommended him so powerfully wherever he became known, and he acquired so much distinction by his zeal and firmness in advocating the ancient principles of the Church of Scotland, that he was solicited by many vacant parishes in succession, to become their minister. He at length accepted an invitation from the town and parish of Stirling, and was admitted minister of the third charge, which appears to have been erected for the purpose, on the 6th of September 1731. Soon after his settlement here, those proceedings of the General Assembly, relative to the settlement of parishes, in the case of the right of presentation falling into the hands of the Presbytery, by the patron failing to present to the benefice within six months from the vacancy, took place; and that course of keen discussion, and determined opposition and remonstrance on the part of some ministers, commenced; which resulted in the setting-up of a separate ecclesiastical court, and the formation of a body of church-members in connection with it, under the name of Seceders, which, from a combination of causes, has greatly extended itself, and has for many years comprehended a considerable proportion of the church-going population of the country, and sent forth branches into almost every part of the globe, where natives of Scotland, or their descendants, are found. Mr Erskine took a very active part in these discussions, and this opposition to the measures of the ruling party in the Church. He was one of the most influential and determined in the steps they took in resistance; and one of the four who brought about the separation, and organized the Seceding court. He was deposed by the General Assembly in 1738; but, a large body of people adhering to him, he continued to exercise his ministry with great acceptance, in a place of worship, erected for their accommodation, on the south side of St John Street. He died on the 2d of June 1754, aged 74; and was buried under the centre of his meeting-house. This place of worship having been taken down, the present one, which is large and handsome, was erected a little farther back, and opened in 1826.

Dr Robert Henry, author of a History of Great Britain, was for

some time educated at the grammar school of Stirling. He was born in 1718, in the parish of St Ninians. He became minister of a Presbyterian congregation at Carlisle in 1748; was translated to a similar congregation at Berwick in 1760; and in 1768 to Edinburgh. He was moderator of the General Assembly in 1774; and died in 1790.

Dr David Doig, rector of the grammar-school, who acquired great celebrity as a classical scholar, and raised the character of the seminary, over which he presided for forty years, to a height of fame, which attracted many families to settle in Stirling, that their children might have the benefit of his instructions, died here in April 1800, at the age of 82.

Dr John Moore, an eminent physician, well known as the author of several successful works in various departments of literature, and father of Sir John Moore, who fell gallantly at Corunna, was born 1730. He was the son of the Rev. Charles Moore, one of the ministers of Stirling; he was educated in Glasgow; and there, after serving with the army in Flanders, and studying in London and Paris, he was settled as partner to an eminent medical practitioner. He afterwards visited different parts of the Continent; and spent the latter part of his life in London, where he died in 1802.

Land-owners.—There being but a small part of the parish landward, the properties in land are inconsiderable. The Crown, the Corporation of Stirling, Cowan's, Allan's, and Spittal's Hospitals; Robert Bruce, Esq. of Kennet; Mrs Burd of Forthside; Mrs Smith of Randolphfield; and William Turnbull, Esq. of Forthbank; own nearly the whole land in the parish.

Parochial Registers.—The whole number of volumes is twenty-four; of which eight are session-records, and sixteen registers of proclamations, baptisms, &c. &c. The date of the earliest entry in the session records, is November 7, 1597. The earliest volume of the register of proclamations, baptisms, and marriages commences in 1585. The register of burials begins in 1727. Of the above-mentioned volumes, three of session records, embracing the period from November 7, 1597, to December 3, 1649, and one of proclamations, &c. from 1585 to 1594, are in the Register House in Edinburgh. How they came to be there, no one can tell. It is said they had been in the possession of a shopkeeper in that city. Whether they can be recovered by the kirk-session has not yet been ascertained.

The presbytery of Stirling's records commence with the erection

of the presbytery, August 8, 1581; and those of the synod of Perth and Stirling, in 1638.

Ancient Buildings and other Antiquities.—Several of these have been already more or less particularly indicated. The following may be noticed in addition. On the right hand, proceeding up the Castle Wynd, stands a spacious quadrangular edifice, known by the name of Argyle House, or Argyle's Lodging, occupied as a military hospital for the garrison in the castle. It is of massive and handsome architecture, according to the style of the period. It was erected in 1632, by Sir William Alexander, created in 1633 Earl of Stirling, a person of great and various accomplishments. After his death in 1640, it became the property of the family of Argyle, who removed the arms of Stirling from some parts of the building, and substituted their own. While it continued in this family, it was for a short time, in 1680, the residence of James VII. then Duke of York; at whose instance, five years afterwards, the Earl of Argyle, his entertainer, was put to death. Here the Duke of Argyle, his grandson, resided and held his council of war during the Rebellion of 1715. It afterwards passed into the hands of the Wrights of Loss, near Menstrie; and from them, to Macgregor of Balhaldie. It was sold about 1797 or 1798, by the representatives of the late Mr Macgregor, to a company of gentlemen residing in and about Stirling, who retained it till the beginning of the present century; when it was purchased by the Crown, and converted to its present useful purpose. It contains many spacious apartments well adapted to the use to which they are put. The chaplain of the castle is here accommodated with a large and convenient lodging. The ground intervening between this edifice and St Mary's Wynd anciently formed part of the property.—Almost immediately contiguous to the south-west corner of the church, stands Cowan's Hospital, erected in 1639. The front is ornamented with a statue of its founder. It is a handsome house; and crowns suitably with its pinnacles, seen above the neighbouring trees, the romantic height it occupies. The lower apartment is the Guild-Hall. The upper is used as a school-room.—The venerable edifice, under whose roof are the two parochial churches, is of great antiquity, having been erected in 1494. The church of the Dominicans or Black Friars had been, for a long period previous to this date, the principal place of worship for the people of Stirling. It stood on the outside of the town; on ground now occupied partly by what is called Spring Garden, and partly by the

houses and gardens adjoining to it, bounded by King-Street and Friar's-Wynd. In the year above-mentioned, James IV. founded a convent of Franciscan or Gray Friars, in the upper part of the town, and built this church for their accommodation. The eastern portion was the choir, in which the public service took place, and the western portion the nave, which was left unoccupied, and open for other purposes of a devotional and sacred nature. The chancel, that is, the circular portion at the east end, in which is a large and handsome window, is believed to have been added several years afterwards by Cardinal Beaton, contributing much to the improvement of the structure, in respect both of convenience and beauty. It was in 1656 divided into two distinct places of worship; both of which are handsome, and much admired by visitors. The East Church is very commodious; and in respect of facility of speaking and hearing, a quality of first-rate importance in a place of Protestant worship, is remarkable. This quality it owes to a large and lofty curvilinear recess at the west end, in which the pulpit is placed, constructed, with a view to this effect, under the direction of the celebrated Professor Robison of Edinburgh. Whether the position of the large and very convenient, but old fashioned and rather ungainly-looking pulpit, and the corresponding arrangement of the pews, adopted several years since, when an alteration in these respects was made, be the best fitted to give effect to the internal structure of the church, is another matter. The view is certainly seen to most advantage from the pulpit; from which point this church, with its lofty roof, its double row of light and elegant pillars, and its eastern window, presents one of the chastest and most pleasing specimens of the pure Gothic architecture now existing in Scotland. The West Church is in some respects less comfortable and commodious. The pillars, of which there is here also a double row, are inconveniently large; obstruct in many places the sight of the preacher and the sound of his voice; and give a heavy appearance to the place. The ground rises behind in the adjoining burial-yard, and renders at least part of the church damp; increasing thereby the coldness, which in winter is experienced in both churches. The pulpit, however, being light and handsome; there being a west window of stained glass; and a splendid central gaselier; and the whole interior having received a complete and costly repair, when, after being disused for three-quarters of a century, it was re-opened in 1817, at an expense which might have been more beneficially employed in building a new fabric in an-

other part of the town ; it presents to a spectator, looking towards the pulpit westward, an imposing aspect. There was in the East Church, till it was removed on the introduction of gas, a brazen chandelier, said to have been the gift of John Cowan. At the west end of the whole building rises a massy tower, 22 feet square, and 90 feet in height. In this there are four bells of considerable size, and of different depths of tone ; so that they might be rung in a regular chime. This has lately been attempted ; but hitherto, without the desired success.—A still more ancient building, but which has long been a ruin, is the Abbey of Cambuskenneth ; situated in the immediate vicinity of the little village named from it, on the northern side of the Forth, and in the county of Clackmannan, although within the parish of Stirling. The name signifies the field of Kenneth ; the adjacent grounds having been, it would seem, the scene of some transaction, in which one of the princes of that name was concerned. It was founded in 1147 by David I. ; and was endowed by himself, and some of his successors, with many privileges, and vast possessions in different parts of the kingdom. It was often called the Monastery of Stirling, and its abbots styled Abbots of Stirling. The church belonging to it was called St Mary's ; and hence the street leading to it from Stirling was called by the name it still bears, St Mary's Wynd. It was frequently, in its palmy days, the scene of transactions of national importance. From the middle of the fifteenth century, it began to decline. At the time of the Reformation ; it was spoiled, and great part of the fabric demolished. It is understood to have furnished materials for the older houses of the adjoining village. The buildings appear to have been of vast extent. One tower alone now remains. A large old building in St Mary's Wynd, on the west side, close to which was the North Port, enjoys a traditional importance, as being of great antiquity, and having been the residence of one of the king's household when the court was kept in the castle. This however is plainly fabulous. The date 1633 ; the style of architecture, the bastard Gothic, similar to that of Argyll House ; the initials, J. C. and A. C., which may have been those of John Cowan and his wife ; the arms, which are those of the merchants, to which class he belonged ; and other circumstances ;—make it next to certain that it was erected by that individual, and probably the house in which he dwelt. There is a large and handsome apartment in it, now used as a carpenter's workshop. The rest of the building is occupied as dwelling-houses. In this street, also,

there is within a garden belonging to a family of the name of Henderson, higher up on the same side, a well dedicated to the Virgin Mary. The ruins of a chapel or bath at St Ninian's well have been already noticed. A more minute description of the numerous remains of antiquity in the form of ruins and buildings, still traceable here, must be left to the professed antiquary.

There are no obelisks or crosses, or traces of ancient camps in any part of the parish. The ancient market cross of Stirling stood in the centre of Broad Street, opposite to the Town-House. It was removed in 1792. Traces of the great Roman military road have been found at a late period. And the remains of the stone piers, on which the famous bridge of Kildean rested, are still observable under the water of the river. A small sword was dug up lately in the King's Park, and is in the possession of Mr Tennant, the present lessee of the Constabulary farm. It appears to have been a *couteau de chasse*, of about the end of the fifteenth century. A curious box, of the size of a snuff-box, was found in Spring Garden some time ago. It is of copper, gilt in the inside, and plated with silver on the outside, and probably contained some articles buried along with the individual, to the remains of whose coffin it was found attached, in these ancient grounds of the Dominican convent. It is in the possession of Mr John Dow of the Stirling gas-work. Other antiquities, such as coins, &c. are in the possession of James Lucas, Esq. Provost Gillies, and James Chrystal, Esq. and probably of other individuals residing here. There is in the session-house, in good preservation, and occasionally in use, the pulpit from which it is understood John Knox sometimes preached in the East Church. There is, also, in the Chapel Royal in the Castle, the wreck of one, occupied by him in that place of worship.

Modern Buildings.—The Athenæum, at the head of King Street, a handsome structure, highly ornamental to the neighbouring streets, having a lofty spire with a bell, and containing a reading-room and public library, the ground-floor being occupied as a shop, was opened on the 7th of January 1817. The Commercial Bank in Spittal Street, the Bank of Scotland in King Street, and the National Bank in Baker Street; all erected within these few years, are beautiful buildings. A large Corn Exchange, for the accommodation of those who attend the grain market on Fridays, has been lately erected; and, besides being used for the special purpose of its erection, is occasionally occupied by such public meetings and festive entertainments as require a large space.

The Royal Hotel, fronting Friars Wynd and the new road to the north, opened last year, is a great ornament to the locality in which it is placed; and is most conveniently situated for visitors and travellers arriving in, or departing from, the town; and along with the other hotels and inferior inns in the place, supplies for the many individuals and families, who from time to time, especially in the summer and autumn months, come to the place, the accommodations they require. Ten years ago a new bridge, in the best moderate style of such structures, was erected across the Forth, to the north of the town, a very little lower down than the old one, which still remains in use. A few mills for the woollen manufactory have been lately built; and a new parochial church is at present being erected in the eastern and lower part of the town, which promises to be a handsome structure. The material employed in all buildings is almost universally stone. In ordinary dwelling-houses and shops, it is the trap or greenstone on which the town rests; in those of a better sort, freestone, brought from quarries beyond the bounds of the parish. In a very few cases, brick, made in the place is employed.

III.—POPULATION.

For the reasons assigned in the historical department, the population of the town is supposed to have been considerable from the time of the accession of the Stewarts to the throne; approaching, probably, to about one-half of what it is at present. Nothing, however, can be said with certainty as to its amount, at any date prior to 1755; when, according to the return made to Dr Webster, the population of the parish was 3951. In 1792, by an accurate survey, it was found to be 4698. By the Government census in 1801, it was 5256; by that in 1811, nearly 6000; in 1821, 7333; in 1831, excluding a few places, which on this occasion, and perhaps in the former cases, were included, but which really belong to the parish of Logie, 8499, of which 3876 were males, and 4623 females; and by that of the present year 1841, 8914.* The population of the town and castle of Stirling is 8531. In that portion of the town which is in the parish of St Ninian's there are 270 persons; in the villages of Raploch and Abbey, 549; in the rural portion of the parish, 104. The probable causes of the increase, which has taken place progressively since about the middle of last century, have been already traced to their source

* In this are included the resident staff and garrison in the castle, amounting to 268 persons; and the prisoners in the jail, to 54.

in the peaceful settlement of the country. The agriculture of the fertile district, of which Stirling is the centre, has been improved. An impulse has been given to trade and manufactures. The passage of travellers through the town has immensely increased with the increasing inducements presented, and facilities given, to intercourse between different parts of the kingdom; and, in particular, by the opening up of the Highlands to tourists and other visitors. And in proportion as the attractions of Stirling itself have been increased, a greater number of strangers have been led to settle in it.

There are no resident nobility in the parish; and the number of individuals, or families, of independent fortune residing in it, it is impracticable to ascertain. The number of land-owners of L. 50 annual value and upwards, is 10. The average number of persons in a family is nearly $4\frac{1}{2}$. The people are not remarkable for strength, size, complexion, or any other personal qualities. The number of insane persons is 8; fatuous, 6; blind, 4; deaf and dumb, 4. The people are not peculiar in respect of language, customs, domestic habits, or comforts. In all these respects, they partake of the character of that part of the lowlands of Scotland which borders on the Highlands; from which, immigrations are frequently taking place of individuals and families, who for a time retain their peculiarities, until they gradually assume the general character of the population.

Pawnbroking is carried on to a great extent; and, instead of proving any effectual relief to the poor, aggravates the evil, from which they resort to it for aid. The same class of persons, who avail themselves of this delusive remedy, are in too many instances already demoralized by the use of ardent spirits; and it rapidly accelerates their downward progress.

IV.—INDUSTRY.

Agriculture.—The whole rural portion of the parish may be said to be either actually cultivated, or occasionally under the plough. The Cow-parks, extending to 50 or 60 acres, and a portion of the Constabulary farm, to about 23 acres, are kept in grass; but these are rather suburban than rural. There are trees scattered, and in a few instances covering the ground continuously in groves or rows, in different parts of the parish; chiefly in the outskirts of the town. Of these the indigenous are chiefly alders, birches, and oaks; the planted, many of which are magnificent and lofty, are chiefly elm, beech, ash, plane, and oak trees.

The rent of land has been gradually rising during the last seven

years. This is ascribed by the very intelligent and talented agriculturist,* from whom I have received my information, to the increased confidence with which the tenant may look for a fair average crop, in consequence of the introduction of tile-draining and other late improvements. The rent of carse land of good quality is from L. 3, 15s. to L. 4 per acre; that of dry-field land from L. 1, 15s. to L. 2 per acre. In the Cow-parks of Stirling cows are admitted to pasture about Whitsunday, and leave about Martinmas; for which the rent in the lower one to the north of the town is L. 4, 4s., and in the upper one near the King's Park, L. 4. In the King's Park the rent is L. 3, 5s. per acre.

Wages.—The wages of carpenters throughout the year, are 2s. 6d. per day; those of masons 3s. per day in summer, and 2s. 6d. in winter. The wages of farm-servants are L. 9 to L. 15 per annum for men, and L. 4 to L. 7 for women; of day labourers about 9s. per week; in harvest 10s. to 15s. per week for men, and 9s. to 12s. for women, without victuals. In respect of the price of raw produce, &c. required for rural and domestic economy; the breeds and improvement of sheep and cattle; and the nature and duration of leases; the landward part of this parish is precisely in the circumstances of the immediately adjoining portions of the parishes of St Ninians, Logie, Lecropt and Kincardine. With the exception of the Constabulary farm, which extends to 348 acres, the farms are very small; only two exceeding 100 acres. The dwelling-houses are suitable to the size of the farms; and, along with the other buildings, are in pretty good repair; and seem for the most part to be attended to, when they stand in need of renovation or improvement. On the Carse lands, which constitute a very large proportion of the whole in cultivation, the crops chiefly depended upon for remunerating the tenant are of course wheat, beans, and barley; on the dry field lands, oats and barley; with a proportion in each of turnips, hay, and grass, for preserving the suitable rotation of crops, feeding and rearing sheep and cattle, and maintaining the necessary complement of horses for labour. Draining, liming, manuring, excellent ploughing, fencing, and all other arts of husbandry adapted to the soil and climate, are practised; and have kept pace with those, which characterize the system of agriculture in the best farmed districts in this part of Scotland.

Quarries and Mines.—There are no mines in the parish. Un-

* Mr James Carmichael, who, along with his brother, has very lately taken a new lease of their farm of Raploch.

der every part of the town, at a greater or smaller depth, is found the greenstone, on which the superstratum of soil rests; and, in many places where the foundations of houses are being dug out, or improvements are being made on the streets, and lines of communication from one part of the town to another, affords excellent materials for building, causewaying, and road-making.

Salmon Fishery.—The salmon fisheries belonging to the place are carried on up and down the Forth, and even in the Teith; and extend somewhat beyond the boundaries of the parish. There is nothing peculiar in the manner in which they are kept up, or in the mode of fishing practised, which is by boats and ordinary drag-nets. The rents amounted for the year 1840, to L. 766.

Average amount of raw produce raised in the parish as nearly as can be ascertained, viz :

Produce of grain of all kinds, whether raised for the food of man, or of domestic animals, about 2345 quarters imperial measure, which, at an average of fairs prices, amounts in value to	-	-	-	L. 3878	0	0
Hay, 24060 stones at 6d. per stone,	-	-	-	601	10	0
Of potatoes, turnips, &c. cannot be ascertained.						
Of lands in pasture.						
Of gardens and orchards.*						
Of crops cultivated for the arts.						
Of thinnings of woods, &c.						
Of fisheries,	-	-	-	766	0	0
Of quarries and mines.						

Total yearly value of all that can be ascertained, L. 5245 10 0

Manufactures and Trade.—A carefully prepared official report was drawn up in 1832, for the information of Government, respecting the town and suburbs of Stirling; from which the following particulars relating to those two branches are extracted:—

The following manufactures are carried on, amounting, as nearly as can be estimated, for the year 1831, to the extent attached to each of them per annum :

Tartans and tartan shawls.	-	-	-	-	L. 90,000	0	0
Carpets, common, superfine, and Brussels,	-	-	-	-	23,000	0	0
This is, however, considerably below an average year.							
Yarns.	-	-	-	-	9,000	0	0
Leather (tanners, curriers, and skinners),	-	-	-	-	24,000	0	0
Cotton goods,	-	-	-	-	10,000	0	0
Soap and candles,	-	-	-	-	20,000	0	0
Malt, about 13,000 quarters per annum, worth at least	-	-	-	-	40,000	0	0
Flour merchants and bakers,	-	-	-	-	25,000	0	0
Coachmakers and rope-manufacturers,	-	-	-	-	6,000	0	0

* Of these there are seven in the parish; besides gardens without orchards attached to them; but, owing to the extreme precariousness of the crops, especially of fruit, for some years, and changes in the occupation in some cases, it has been found impracticable to give any return.

The trade and commerce of Stirling may be classed and estimated as follows :

Foreign and home timber,	-	-	-	L. 20,000	0	0
Grain sold in the market, about 42,000 bolls per annum,	-	-	-	44,000	0	0
Grain imported by dealers at Stirling shore last year, 30,000 bolls.	-	-	-	31,000	0	0
The importation averaging the last seven years has been 52,000 bolls.						
Teas, wines, spirits, and groceries,	-	-	-	68,000	0	0
Hardware, iron, and nails, made for exportation,	-	-	-	17,000	0	0
Woollen cloth, silks, and haberdashery,	-	-	-	65,000	0	0
Tallow, oil, and Flax,	-	-	-	5,000	0	0
General merchandise, at a moderate estimate,	-	-	-	50,000	0	0
Trade in bricks, tiles, lime-burning, and coals, at least	-	-	-	15,000	0	0
Dyeing, (yarns, home-made woollen cloth, silks, &c.)	-	-	-	16,000	0	0
Wool exported to England, per average of last seven years, 25,000 stones.	-	-	-			

No estimate is here made of the business done in the numerous markets for horses, &c.; or by the steam-boats, the gas company, brewers, innkeepers, builders, joiners, plumbers, and other mechanics.

Since 1832, the woollen manufacture has more than doubled. That of cotton has fallen off, and is now inconsiderable. Coach-building has much increased. There are three mills for spinning wool. In these, there are 140 hands employed. They work six days of the week; during five of which, they work eleven hours, and on Saturday nine. There are not less than 280 looms employed by Stirling manufacturers in the weaving of wool into tartan pieces, shawls, &c. there being now little carpet weaving. They give employment to about 650 weavers, winders, &c. The days and hours of work with weavers are six days in the week, and fourteen hours in the day. There are employed in dyeing about 28; in tanning and skinning about 12 persons; in coach-making, about 100; and in ropemaking, 20. In the four last-named, the hours of working are ten in the day. There may be ninety of the hands employed in connection with the weaving of woollen goods, residing beyond the parish. But, on the other hand, one or two manufacturers residing out of the parish, employ weavers in it; which, along with the few looms employed here by cotton-manufacturers in Glasgow, will, it is estimated, fully compensate for that circumstance. So that the whole number of persons within the parish employed in all the branches of manufacture carried on in Stirling, may be about 949. In all these branches, there is a fair remuneration to those engaged in them. The occupation of wool-spinning has an excellent effect on health; and the regular employment, and the attention paid by the masters, appear to have a good effect on the morals of those employed.

The occupation of weaving, when continued during so large a portion of the day, can scarcely be considered beneficial to health. It cannot be said, however, that, either in health or in moral character, there is any perceptibly injurious effect produced by the manufactures of Stirling.

Navigation.—The port of Stirling is the only one in the parish ; and the Forth the only navigable river. There are belonging to the port of Stirling twenty-two vessels, of from 50 to 350 tons burden ; two of them brigs engaged in foreign trade ; the others schooners, smacks, &c. trading up and down the Frith, or to ports in the united kingdom. Besides these, there are belonging to the port, three steamers for passengers, of the Stirling and Alloa Company ; and one or two luggage steamers. A passenger steamer, belonging to a Glasgow company, also occasionally plies between Stirling and the neighbourhood of Edinburgh, calling, as do the others, at the intermediate ports. Three schooners, bringing timber from Norway, regularly visit the port ; and occasionally one from Holland, with bark. The navigation of the Forth is much impeded by shallows, which prevent vessels of heavy burden from reaching the port, and often greatly retard those which are able to reach it. A plan has been lately submitted to the magistrates and Council for deepening the river. The expense would be great ; and it may, perhaps, be impracticable to obtain the necessary funds, without the aid of Government. It would, however, not only be of great and lasting advantage to Stirling, by raising its port to a higher position ; but would be an improvement felt throughout a large and important district ; and would, in so far, prove a national benefit.

V.—PAROCHIAL ECONOMY.

Market-Town.—Stirling is the only market-town in the parish. It has a weekly market on Fridays for grain, and the other produce of the district, which is well attended. It has also several fairs or extraordinary markets, for horses, wool, &c. annually, which are held on Fridays. There are only two villages, viz. Raploch and Abbey ; whose population has been already stated.

Means of Communication.—The post-office is in a very convenient part of the town, in respect of proximity to the great roads by which the mails are received and despatched in all directions. There are mails to Edinburgh twice, and to Glasgow three times in the day, and through these cities to the south : to Perth, Aberdeen, &c. once ; to Doune, Callander, Alloa, Larbert, Falkirk,

Denny, &c. once or twice. There are excellent turnpike-roads in all directions. The length of these, however, within the parish is too trifling to be worthy of notice. The number of public carriages, as mail and stage-coaches, omnibuses, stage-cars, is very great, considering the size of Stirling. To these are to be added the steam-boats, constantly plying between Stirling and Newhaven or Granton Pier. Of these, there are in the summer and autumn never less than two, and often three. They convey an immense number of passengers to and from this place; besides those who embark and disembark at the other towns and villages on the Frith. The fares by these steam-boats are exceedingly low, and those by the other public conveyances, moderate. There are two bridges over the Forth, near to one another to the north of the town. By the new one, of course, the great north road now runs. The other ought to have been more particularly noticed under a former head. It is of very considerable antiquity. The date of its erection is unknown; but it is probably not less than 300 years old. Archbishop Hamilton was hanged upon it in 1571, by order of the Regent Lennox. It has four arches; of which General Blakeney, Governor of the castle, caused the south one to be blown up in 1745, to intercept the Highlanders. When this arch was restored, is unknown. It is of antique structure, narrow and high in the centre; and had originally flanking towers, through which were gates near to each end; and two low ones in the middle. The new bridge has three arches; and a wide and level road-way. The harbour, for the accommodation of vessels in the port of Stirling, formed by the bending of the river, and a quay on the convex, which is at this point the south and Stirling, side, is not very commodious, but quite large enough for the increasing trade.

Ecclesiastical History and Present Ecclesiastical State.—The occasion and date of the erection of the edifice now occupied by the East and West Churches have been already mentioned. When the Reformation had taken place, the apparatus and insignia of the idolatrous Popish ritual were, of course, removed along with the abolition of the ritual itself; and the Protestant worship was set up. From this period until 1607, the parish was under the spiritual charge of one minister. A second minister was then appointed; but it was not till 1643 that a fixed endowment was given by the magistrates, &c. In 1731, upon an application from the inhabitants, the third charge was created, upon which occasion they gave their consent to a mulcture, which had

been levied for some years, being perpetuated for its support. From this time, the ministers of the first and second charges were colleagues together in the East Church, the minister of the third charge preaching in the West, until, upon the deposition of Ebenezer Erskine, for whom this charge had been instituted, that church was disused as an ordinary place of worship, and only opened on sacramental occasions for the accommodation of those who could not find access to the East Church. This state of things, notwithstanding one or perhaps more petitions of the inhabitants, continued till 1817, when the third charge was revived, and the West Church re-opened. The arrangement, in other respects, continued the same down to 1825, when the then minister of the third charge, being appointed to the second, remained in the West Church, instead of being transferred to the East, and, on being appointed in 1829 to the first charge, still remained in the West Church. The arrangement adopted since this last date has been, that the minister of the first charge is fixed in the West Church, the minister of the second charge in the East, and the minister of the third charge preaches in each church alternately as colleague to both the others. This anomalous arrangement will soon be broken up, in consequence of the erection of the new church now in progress; when each minister will have his own church, kirk-session, congregation, and parochial territory. A temporary arrangement, in so far as respects separate kirk-sessions and parochial districts, has meanwhile been adopted, in conjunction with the minister and session of the Old Light Burgher congregation, lately united to the Established Church, which can only go a little way towards the bringing about a right ecclesiastical economy, and to which it is unnecessary more particularly to advert. One circumstance which, along with others connected with the increase of the population, and the increased necessity of a closer and more adequate system of pastoral superintendence, urgently recommend an improvement in the present ecclesiastical arrangements, is the inconvenient position of the presently existing churches, situated on a high elevation in the very outskirts of the most inaccessible part of the town, and near to the extremity of the parish. This inconvenience will only be remedied in part by the new erection. A proper parochial arrangement will never be effected until the West Church be shut up, and another church be built in the northern quarter of the town. It has been ascertained by measurement that the accommodation in the East Church amounts to about

1195 sittings, that in the West to about 1144 ; in all 2339 ; the free sittings in both to only 80, most of them in the West Church, and inconveniently situated. The minister of the first charge alone has right to a glebe and manse. Since the old manse, already mentioned, was taken down, there has been none. In lieu of it, L. 40 per annum is allowed him for house rent. His glebe extends to nearly five acres. His stipend is as follows :—From teinds of lands principally in the parish of Stirling, and partly in that of St Ninians, the teinds of which belonged to the Abbey of Cambuskenneth, wheat, 4 bolls, 3 firlots, 2 pecks ; barley, 96 bolls, 3 pecks, 2 lippies ; oatmeal, 68 bolls ; oats, 40 bolls, 2 firlots, 1 peck, 2½ lippies ; beans, 4 bolls, 3 firlots, 1 peck ; money, including vicarage, L. 40, 0s. 6d. ; allowance for communion elements, payable by the heritors of the parish, L. 9, 18s. 10d. ; allowance of the price of two beeves, averaging about L. 17 ; and a right to a boat's fishing in the river, at present rented by the town for L. 70.

The minister of the second charge has a stipend of L. 250, and the minister of the third charge a stipend of L. 200.

The sacrament of the Lord's Supper being dispensed twice annually in each of the two churches, in addition to the allowance for communion elements given to the minister of the first charge, three other allowances of L. 8, 6s. 8d. each, are given for the same purpose, which fall to the other two ministers ; and as, at present, the minister of the second charge presides in the celebration of the ordinance, and provides the communion elements once, and the minister of the third charge twice ; these allowances are distributed accordingly.

The following is a notice of the ministers of Stirling from the earliest period after the Reformation up to which they can be ascertained, with such particulars of their history as may with propriety be introduced in a Statistical Account, in so far as I have been able to trace them.

The first individual who appears to have occupied any ministerial office in the parish of Stirling, was Thomas Duncanson, *Reader*, who was, for uncleanness, suspended by the General Assembly, December 31, 1563. I have found no subsequent notice of him.

John Duncanson, chaplain to the King, is mentioned in the records of the General Assembly, August 6, 1571, as one of the ministers commissioned to treat with the Regent about ecclesiasti-

cal affairs. He was moderator of the Assembly which met in August 1574. He may have discharged the duties of parochial minister, but does not appear to have held the office.

The notorious Robert Montgomery was minister of Stirling as early as August 1581. By the General Assembly, which met at Glasgow in April that year, he was appointed a commissioner with two other ministers to erect Presbyteries at Stirling and Linlithgow; and, accordingly, on the 8th of August, assisted at the erection of the presbytery of Stirling, of which place, as appears from the records, he was then minister. Two months after, the process against him for unsound doctrine, dissolute life, and contumacy, was commenced, which terminated in his deposition and excommunication in April 1582. He appears to have been as early as 1564 minister of Cupar in Fife.

The minister of Cambuskenneth sat in the Presbytery in 1581. James Anderson succeeded to Montgomery in 1582.

Patrick Simpson was settled in 1591. In 1607, by an order of Council, an attempt was made to have him created perpetual moderator of the presbytery; but the presbytery answered, "that he had not been able, on account of sickness, to discharge his own calling in preaching; much less was he able to discharge the office of constant moderator; and therefore they could not burden him with an impossibility."

Robert Mure was admitted coadjutor to Patrick Simpson the same year. This was the earliest appointment of a second minister. In 1610 it was ordained, by the Presbytery, that the second minister was not to take the first charge without consent of the presbytery.

Henry Guthrie was admitted to the first charge in May 1632. In 1638 he was desired to apply to the magistrates for a fellow-labourer. It does not appear what was the result at that time; but John Allan was appointed to the second charge in 1645; and Guthrie and he were put out by the commission of the General Assembly for malignancy in 1648.

James Guthrie succeeded Henry in the first charge in 1649; and was executed in Edinburgh in 1661.

— Bennet was appointed to the second charge in 1650.

Mr Guthrie, with the concurrence of his two elders, the provost, and two bailies, appointed Robert Rule to fill the second charge on its becoming vacant. But this not being sanctioned by the town-council, they appointed Matthias Simpson, who was admitted

by the presbytery on the 19th November 1655, after some interruption by the governor of the castle, on the ground of the question raised by Mr Guthrie, as to his right to nominate the second minister, being still pending before the Council of State. The result of the disagreement was, an order of the Court of Session to build up a wall of partition, to divide the fabric of the church into two distinct churches; which was done, and two congregations formed, in 1656.

Matthias Simpson succeeded James Guthrie in the first charge in 1661, and died in 1664. The cause of the opposition made by Guthrie to Simpson, becomes evident from the opposite courses they followed at the Restoration of Charles. Guthrie had been a Protester, and died a martyr to his principles; Simpson, a Resolutioner, conforms to prelacy and is promoted.

— Kynnier was appointed to the second charge in 1663.

James Forsyth, minister of Airth, was appointed to the first charge in 1665, and died in 1675.

Patrick Murray was settled in the second charge in 1668; and died in 1682.

Dr William Pearson was appointed to the first charge in 1677, and died in 1679.

Dr Munro obtained the first charge in 1679; and resigned in 1693, probably not choosing to conform to the Presbyterian Establishment.

James Hunter was appointed to the second charge in 1682; and deposed in 1693.

Robert Rule, who had been made second minister by James Guthrie, and had since been minister of Kirkaldy, was appointed to succeed James Hunter in the second charge in 1693; and, in August 1694, succeeded Dr Munro in the first; and died in 1703.

John Forrester from London was admitted to the second charge, December 3, 1696, and died in June or July 1702.

James Brisbane, minister of Kilmalcolm, was admitted December 29, 1704, to the second charge; and to the first, some time previous to January 1706; and died in June 1725.

— Macauley, minister of Inchinnan, was admitted to the second charge, October 30, 1706; and died October 1715.

Alexander Hamilton, minister first of Ecclesmachan and then of Airth, was admitted to the first charge, February 2, 1726; and died January 29, 1738.

Charles Moore, minister of Culross, was admitted to the second charge, March 26, 1718; and died November 1736.

In 1731 the third charge was created; and Ebenezer Erskine, minister of Portmoak, was admitted to it. He was deposed in 1740.* The third charge was in abeyance from this date till 1817.

Thomas Turner, minister of Tulliallan, was admitted to the first charge, December 31, 1740; and

Daniel Macqueen, minister of Dalziel, was on the same day admitted to the second charge. He was removed to Edinburgh, June 1758; and Mr Turner died, November 1, 1762.

John Muschet was ordained and admitted to the second charge, August 2, 1760; was translated to the first, October 4, 1780; and died April 22, 1793.

Thomas Clelland, minister of Cambusnethan, was admitted to the first charge, August 4, 1763; and died July 31, 1769.

Thomas Randall, minister of Inchtute, was admitted to the first charge, June 21, 1770; and died July 26, 1780.

Walter Buchanan was ordained and admitted to the second charge, November 23, 1780; and translated to Canongate, Edinburgh, June 18, 1789.

James Somerville, (afterwards, D. D.) minister first at Rotterdam, then at Whitburn, was admitted to the second charge, October 8, 1789, and to the first, June 27, 1793; and died January 23, 1817.

William Innes was ordained and admitted to the second charge, August 15, 1793; and, having become an Independent, was deposed October 8, 1799.

John Russel, minister of the High Church, Kilmarnock, was admitted to the second charge, January 30, 1800; and died February 22, 1817.

Archibald Bruce was ordained and admitted to the third charge, now revived, September 24, 1817; and died June 11, 1824.

George Wright, (D. D.) minister of Markinch, was admitted to the first charge, January 21, 1818; and died October 24, 1826.

Alexander Small, (D. D.) minister of Stair, was admitted to the second charge the same day; and died January 5, 1825.

Archibald Bennie, assistant minister of Albion Street Chapel, Glasgow, was admitted to the third charge, October 14, 1824; to the second charge, June 17, 1825; to the first charge, March

* *Vide* notice of him among "Eminent Persons."

31, 1829; and translated to Lady Yester's, Edinburgh, September 24, 1835.

John Marshall, minister of Swallow Street Chapel, London, was admitted to the third charge, September 15, 1825; and to the second, July 29, 1830; and died September 3, 1833.

James Macfarlane was ordained and admitted to the third charge, May 3, 1831; and translated to St Bernards, Edinburgh, January 12, 1832.

Alexander Leitch, minister of Gartmore Chapel, was admitted to the third charge, September 13, 1832.

George Cupples, minister of Legerwood, was admitted to the second charge, January 9, 1834.

James Julius Wood, minister of Newton-upon-Ayr, was admitted to the first charge, May 12, 1836; and translated to New Greyfriars, Edinburgh, June 5, 1839.

Alexander Beith, minister first of the Gaelic Chapel, Hope Street, Glasgow, then of Kilbrandon, and afterwards of Glenelg, was admitted to the first charge, September 26, 1839.

There are no chapels of Ease in the parish; but the Spittal Square Church and congregation, formerly belonging to the Old Light Burgher Synod, and now united to the Established Church, stands very much in the same relation to the Establishment. The minister, the building, &c. are supported entirely by seat rents, collections at the church doors, &c. The ministers of the following Seceding and Dissenting congregations in Stirling are supported, and their places of worship kept up in the same way, viz. United Secession, 2; Cameronian, 1; Independent, 1; Episcopalian, 1; Baptist, 3. The Baptist congregations, two of which are very small, have no place of worship erected for them; but meet, one in the Guildhall, one in the Tradeshall, the third in a hired apartment. There is also a Popish chapel, erected within these very few years by contributions obtained in Scotland, England, and, it is supposed, foreign parts. How the priest is supported, I cannot say; but believe, partly at least, by contributions from his congregation. This chapel is under the jurisdiction of the Bishop residing in Edinburgh. There has been no accurate enumeration, that can be depended on, of the individuals, or families, belonging to the different denominations since 1836, when returns were made to the Royal Commissioners. From the reports then given in by the ministers of the Dissenting denominations, there were 2476 individuals, of all ages, or about 561 families, within the parish,

professing to be connected with their congregations. It was found by a careful survey made, to enable the ministers of the Established Church to prepare their report, that 320 families, comprehending about 1400 individuals of all ages, had no right to sittings in any place of worship. From which it appeared that there were 4488 individuals of all ages, or about 1016 families, belonging to the Establishment. Since that time, the congregation of Spittal Square, with the exception of a few individuals, has been united with the Established Church. This congregation, however, is small; and some increase has taken place in the Independent congregation, by means of several visits made to Stirling by some teachers of that persuasion, who laboured with great zeal, both by public preaching and by domiciliary visits, to obtain proselytes from the Presbyterian churches; and were in some degree successful in drawing off individuals, both from the Established Church and from the Seceders. The relative proportion, therefore, of the adherents of the Established Church remains much as it was in 1836. It is to be remarked that the families having no sittings anywhere, almost in every instance profess to belong to the Established Church; and probably some considerable proportion of them do occasionally, and a few with something like regularity, attend public worship in one or other of the congregations connected with it. Most of the places of worship are well attended. The average number of communicants in the churches connected with the Establishment, may be from 1200 to 1300.—The only societies, properly belonging to the parish, for strictly religious purposes, are the Tract Society, which distributes 2900 tracts monthly, some hundreds of which, however, go beyond the bounds of the parish; and the Sabbath School Society. The Female society, for the benefit of aged and destitute women, combines the temporal relief of its objects with attention to their religious instruction. The Stirling Dispensary is supported by a regularly organized society, for supplying poor patients with medical attendance and medicines. The annual average amount of the contributions of these societies is about L. 200, 15s. 8½d. Besides these, Stirling is the seat of one county Missionary, and two county Bible Associations; whose annual contributions amount at an average to L. 216, 11s. 2½d. The average annual amount of church collections for religious and charitable purposes for the last five years was about L. 382.

Education.—The number of schools in the parish of all kinds, exclusive of Sabbath schools, is 19; of Sabbath schools, 18; total

37. There are, properly speaking, no parochial schools. The magistrates and council are patrons of four schools; viz the High School; the writing and mathematical school; the first English school; and the second English, or Allan's Hospital School. The rector of the High School and the teachers of the other three schools have L.50 each of salary; and the rector receives L.20 yearly for an assistant. The rector has a dwelling-house and garden. All the teachers occupy school-houses belonging to the burgh, excepting Allan's Hospital School. The salaries are paid out of the property of the town, and the three hospitals, in fixed proportions. The branches taught at the High School are, Greek, Latin, French, geography, and ancient history. At the writing and mathematical school, writing, arithmetic, book-keeping, geography, navigation, and mathematics in general. At the first English school, English, elocution, geography, and drawing; at the second English school, English, history, geography, writing, and arithmetic, and occasionally book-keeping and practical mathematics. The school fees are, grammar school, 7s. 6d. per quarter; writing school, 3s. 6d. per ditto; for one hour in the day, 2s. 6d. per ditto; first English school, 5s. per ditto; second ditto, English, 3s. 6d., and other branches with English, 4s. 6d. per ditto. These fees are fixed by the patrons, for children belonging to families having right to benefit from any of the hospitals. At the grammar school and writing school, higher fees are charged in certain cases to others. At the grammar school, when French is combined with Latin or Greek, the fee is 12s. 6d. per quarter. At the writing school, algebra is charged 10s. 6d. per quarter; mathematics, comprehending the First Six Books of Euclid, L. 1, 1s. per course; plain trigonometry, 10s. 6d. per ditto; mensuration, 10s. 6d. per ditto; navigation, L. 1, 11s. 6d. per ditto. The magistrates and council likewise patronize two other schools, by giving to their teachers a small salary, and a dwelling-house and school-room; and another, by giving the use of the upper hall in Cowan's Hospital. In these, English, writing, and arithmetic, are taught. There are eight English schools altogether, dependent on school fees, three of them boarding and day schools for girls; one by the Stirling and Bannockburn Caledonian Society; one, the infant school, supported by a Society of ladies, aided, in cases in which it can be obtained, by a weekly fee of 1½d.; one for girls, supported in a somewhat similar manner. There is a recently commenced seminary for English, Latin, Greek, geography, writing, arithme-

tic, and mathematics; which is supported by school-fees, aided for a time by subscriptions from individuals, and one from the town. In this school, the fees are, for English, writing, &c. 10s. 6d.; and for Latin, Greek, &c. 15s. per quarter. There is another for similar branches, on private adventure, in which the fees are 10s. 6d. per quarter in all cases. The fees in the boarding and day schools for girls, which comprehend a great variety of branches of female education, it would be tedious to detail. In all the other English schools, they are from 2s. 6d. to 3s. per quarter for English, and 3s. to 3s. 6d. for writing. In the infant school, religious and moral training is the principal object, along with which a foundation is laid for education in reading, &c. The number of children and young persons attending all these schools may be from 950 to 1000. There are some children of different ages who can neither read nor write; but their number, to the best of my knowledge, is small. I have met with a very few grown up persons who could neither read nor write. One of them, a female, at present a servant in the town, in her childhood resided in a remote part of the parish of St Ninian's, four or five miles from the nearest school; and had to take charge of the younger children, and otherwise assist her mother in domestic matters, when she ought to have been receiving her education. The younger children, when they arrived at the proper age, were sent to school; but she, being of more use at home than they, never could obtain this privilege. In the other cases, there might be similar hindrances. Education, such as it is, is almost universally diffused throughout even the poorest classes of the community. The kirk-session, Allan's and Cunninghame's Mortifications, a small fund left by Mrs Turner, widow of a minister of Stirling, the two Ladies' Societies, which support the infant and girls' schools, and the occasional benevolence of private individuals, greatly contribute to this result. The education received, however, is, in the case of the poorer classes of children, to a great extent defective; and the source of much less subsequent advantage in improving the mind, and cultivating moral and religious principles, than it might be, were they in circumstances to remain longer at school, and were the schools, at which many of them receive their education, so endowed as to secure the employment of teachers of a higher grade of attainments, not only in respect of literary and other knowledge, but also in the art of communicating instruction to the young. No part of the parish can be said to be so distant from any school

as to prevent attendance at some one or other. Yet the children in the Abbey, having to cross the river in a boat, and to pay for being ferried over, are, to some considerable extent, confined to the one school in that village; and discouraged from attending schools in the town, where they might have a choice of teachers, and acquire the higher branches of education. It is not a greater number of schools that is required, but in many cases better qualified teachers, and an improved system of tuition. This remark is far from being intended to apply generally; or to derogate from the high character sustained by several well qualified and successful teachers, who enter with that enthusiasm into the spirit of their almost incalculably important profession, without which much success in any is not to be expected. It ought to be added, that, in most of the schools in which English is taught, the Scriptures are read; the Shorter Catechism is repeated; and considerable attention is paid by the teachers in these, and in other ways, to religious training. It needs scarcely to be added, that in all the Sabbath schools, of which 11 are in connection with the Sabbath School Society; and 7 are undertaken by ministers, with the assistance of elders, or connected with congregations, the services of the teachers, and the instruction received, are entirely gratuitous.

Literature.—There is no parochial library. There are some congregational libraries. One of these belongs to the East Church, and was formed six or seven years since; one belongs to the Cowan Street United Secession Congregation; one to the Cameronian Congregation in the Craigs, &c. These consist almost entirely of books of a religious character.—The Stirling Subscription Library comprehends general literature. It was founded January 1, 1805; has 127 subscribers or rather proprietors, and upwards of 2000 volumes; and, under the present system of management, has the prospect of receiving an annual accession of from L.40 to L.50 worth of books. It embraces town and country; but has few subscribers at any considerable distance from Stirling.—The School of Arts was instituted in 1826. Its object is “to instruct the members in the principles of mechanical philosophy, and those other branches of science, which are of essential service in the exercise of the arts of life.” Its members amount to 201; viz. senior, 115; junior, 56; ladies, 30. It has a library, and a museum; and appears to be prospering, and conferring benefit on those for whose improvement it was established. There are two or three circulating libraries; and there is a book club, extending to the

neighbouring district, for purchasing and circulating among its members new publications. There are two reading-rooms, where, besides newspapers, periodical publications are taken in. The medical practitioners of Stirling, have, within these few years, formed an association for promoting their knowledge of the literature, and otherwise advancing the objects, of their profession. There are two weekly newspapers, the one published on Thursday, the other on Friday; which have each a considerable circulation in the town; and in the surrounding district.

Charitable Institutions.—There are three hospitals. The most ancient is that founded, it is believed, about 1530, by Robert Spittal. He had been tailor to James IV., or rather, as appears by an inscription on the bridge over the Teith, near Doune, erected by him in that year, to James's Queen, the princess Margaret, daughter of Henry VII. of England. The charter of mortification is lost, and the amount unknown. The funds were laid out in lands in the neighbourhood of the town. The revenue, amounting to about L. 400, is applied to the relief principally of decayed members of the crafts of Stirling, whether resident or not. The house belonging to it, in which also, as appears from some old records of the kirk-session, the persons enjoying the benefit of the charity at one period resided, is that known by the name of the Trades' Hall, in Spittal Square or Cowan's Yard. The number of pensioners, who receive from 1s. to 2s. 6d. weekly, is about 74. —Cowan's Hospital was founded in 1639, by John Cowan, merchant in Stirling, for the support of twelve decayed guild-brethren. The house belonging to it was erected after his death, for their reception; but, as scarcely any could be found to accept the benefit on condition of living in the house, after a period of nearly ninety years, the patrons having purchased lands with the accumulated funds, resolved to follow out the spirit at least of the donor's will, by giving pecuniary relief to decayed members of the guildry, and to their widows and daughters. The sum mortified was L.2222 Sterling. The free revenue from the lands now amounts to L.2000 per annum. There are about 143 weekly pensioners who receive from 1s. 6d. to 6s.; and eleven who receive quarterly pensions of from L. 1, to L. 2 10s.—John Allan, writer in Stirling, founded the hospital, which bears his name, by a deed of donation, dated March 20, and June 5, 1724, for the maintenance, education, clothing, and apprenticeship, of the male-children of poor and indigent tradesmen. The deed contains very judicious provisions,

manifesting great sagacity and benevolence. A house was built in Spittal Street, in which the children are taught and boarded with the master. This arrangement not being found to answer expectation, it was discontinued. The lower part is now occupied in school-rooms ; and the upper part let out in dwelling-houses. The sum mortified was L.1666, 13s. Sterling. Lands were purchased ; the free revenue arising from which, after deducting the expenses of management, amounts to about L.300, and is applied in terms of the will of the donor ; and occasionally also in giving donations and education to daughters of tradesmen. The number of boys enjoying the benefit of the foundation is 23.—Besides these hospitals, there is a mortification made by Alexander Cunningham, merchant in Stirling, in 1809 ; the interest of which is applied, agreeably to his will, to the maintenance and education, and putting out to trades, of male children of guild-brethren, and mechanics. The sum available to the purposes of his will, being the residue of his estate, amounts to L.5724, 11s. 2d. The number of boys enjoying the benefit of the charity, is 20. In the management of the affairs of Cowan's Hospital, the minister of the first charge is conjoined with the Town Council ; and in the affairs of Allan's Hospital, the minister of the second charge. Of Spittal's Hospital, and Cunningham's Mortification, the magistrates and Council are sole patrons.

Dispensary.—The Stirling Dispensary was instituted in 1830. It is under the management of a Committee of directors, annually elected by the subscribers. There is an ordinary medical attendant, with whom are associated three consulting physicians. Attendance is given, at a fixed hour, on three days of the week, at the dispensary. Such patients as are unable to come are visited in their own dwellings, whether in town or country. Subscribers of 5s., and kirk-sessions of all denominations, contributing L. 2 annually, are entitled to recommend patients. The medical attendant has a salary of L. 10 ; and small allowances for visits in the country. The subscriptions for last year (1840) amounted to L. 54, 13s. The institution is in good circumstances, having L. 286 in the bank ; while the most generous system seems to be acted upon in relation to the objects of the charity. During the last year, there were 264 cases treated in the dispensary ; of which 228 were from the parish of Stirling. Of these Stirling cases, the most frequently occurring diseases were, continued fever, 46 ; small-pox, 17 ; constipation, 13 ; ulcer, 12 ; heart diseases, 8 ;

measles, 8; ophthalmia, 8; hernia, 7; contusion, 6; hysteria, 6; scabies, 6; scarlatina, 5; abscess, 5: and the results were, cured, 199; relieved, 20; died, 26; remaining, 19.

There are a few Friendly Societies; but I have not obtained information as to their description, or economical effects. From what I know of the condition of the poorer classes here, I apprehend the benefit derived from them, in promoting industrious habits and a spirit of independence, is inconsiderable.*

Poor's Funds.—Besides the funds provided for the relief of the poor by church collections, and other means adopted by the kirk-session, such as funeral dues, sales of lairs in the church-yard, allocation of a portion of the proclamation fees in certain cases, &c., there is what is called the Poor's Scheme, for raising money by annual voluntary contributions, in aid of the ordinary parochial funds administered by the kirk-session. The managers of this fund are the ministers of all denominations, and a number of other individuals annually elected by the contributors. The magistrates give it their countenance and support; and the provost, when present, presides at its meetings, which take place within the council house once in the month. The average number of persons receiving a stated weekly allowance from one or other of these two funds, was, during the last five years 178; and the average weekly allowance to each was 1s. Besides these stated allowances, there are occasional donations given to paupers, not regular pensioners, especially from the session funds. Coffins are provided by the session for paupers at the rate of 10s. each, and sometimes grave-cloths. Clothing is given from their funds, to a considerable amount in the year, to poor children, and to a few poor and aged women; and several children are educated at their charge. The whole annual amount of funds raised for the relief of the poor and administered by these two bodies, taking the average of the last five years, was as follows:—Session funds, viz. church collections, L. 250, 18s. 0½d.; miscellaneous, L. 11, 6s. 10d.; legacies, L. 27, 10s.; Poor's Scheme funds, L. 235, 9s. 6d.; amounting in all to L. 525, 4s. 4½d. There does not appear to be any reluctance on the part of the poor to avail themselves of parochial relief. Any feeling of this nature seems to have been for some time extinct.

Prison.—The number of prisoners committed to Stirling jail, from the commencement of the present year, till the 19th of October inclusive, was 231; of whom belonged to the parish, 65;

* Since the above was in types, a proposal has been circulated for the institution of a Savings' Bank on the National Security system.

to the county exclusive of the parish, 107 ; came from beyond the county, 59. The offences for which they were committed were as follows:—viz. theft, 111 ; receipt of theft, 3 ; fraud and wilful imposition, 6 ; embezzlement, 2 ; perjury, 1 ; uttering base coin, 4 ; forgery, 3 ; house-breaking, 13 ; assault, 66 ; malicious mischief, 6 ; poaching, 2 ; prison-breaking, 1 ; desertion, 8 ; culpable homicide, 1 ; concealment of pregnancy, 1 ; child-murder, 3.

In the same proportion there would be for the whole year as follows: viz. ; total committed, 289 ; from the parish, 81 ; county, 133 ; beyond, 75. And the more frequently occurring offences would be ; theft, 139 ; house-breaking, 16 ; assault, 83 ; desertion, 10 ; wilful fraud and imposition, 7 or 8 ; malicious mischief, 7 or 8 ; and uttering base coin, 5.

It is proper to mention, that the one case of alleged child-murder, for which three persons were committed to prison, turned out a complete failure. No doubt was left of the innocence of the parties.

The prison is pretty well secured ; and as much attention is paid to the health of the prisoners in respect of diet, lodging, &c. as can be done in the circumstances of the case. The building is unfit for a jail in many respects ; in particular as not admitting of proper classification, a defect highly injurious to the inmates, and especially to the younger and less hardened offenders. It is a nuisance to the neighbourhood ; and the windows looking down upon the Street have often afforded a medium of communication with persons beneath. It has long been earnestly desired that a new jail should be built in a different locality ; and there is said to be now some prospect of it. The jail is under the charge of a governor, who has a salary of L. 50 from the burgh, and L. 54 from the counties of Clackmannan and Kinross, with certain fees, which amount to about L. 10 more. He has an assistant, or under jailer. It is under the direction and control of the Board of Commissioners, and inspector, appointed by a late Act of Parliament. A chaplain is much needed for the religious instruction of the prisoners, and the Board are empowered to provide one, but have not yet taken any steps towards such an appointment. The ministers of Stirling are unable to pay adequate attention to the jail. Their visits are of necessity miscellaneous and unfrequent. A few ladies regularly visit, and communicate religious instruction to, the female prisoners ; and there is reason to trust that benefit has been received by some of them.

Inns, Alehouses, &c.—There are 96 of these, of different

degrees of respectability in the parish ; of which 91 are in the town, and 5 in the villages of Raploch and Abbey. Some of these, no doubt, are necessary ; but, to such an amount, they are the source of much evil. Many of them are of the worst description ; receptacles for the vilest characters, giving facility, and holding out temptation, to drunkenness, profligacy, profanation of the Sabbath, and the many vices which follow in their train. They have a most injurious influence on the morals of the lower orders : they give grievous offence and scandal to those members of the community who have better tastes and principles, when they hear, and that often on the Sabbath, the sound of revelry proceeding from them, and witness in their neighbourhood the revolting scenes to which they give rise ; they tend to lower the tone and feeling of the mass of the inhabitants in relation to the virtues of sobriety and decency, and the sacredness of the day of rest ; and they reflect discredit on the place where such practices prevail, and such depravity is exhibited. One pregnant cause of this evil is the readiness of the owners of houses to allow them to be occupied in this way for the sake of obtaining a higher rent, without regard to the mischievous use to be made of their property. Another is the granting of licenses, without sufficient inquiry as to the character of the applicant, and the moral expediency of planting down, or continuing, for the mere purpose of sordid traffic and gain to an individual, what may prove a powerful stimulant to crime, and a pest to the community. The effect produced by the great number of low tipping-houses, and the facility with which almost the smallest pittance in the hand of a poor person can be exchanged for ardent spirits at a grocer's shop, in increasing the number of the destitute, and sinking them into deeper wretchedness, has been for a long period forcing itself upon the notice of every real friend to the moral welfare of the poor. There are, no doubt, other causes to which the growing pauperism may be traced ; and some of these, perhaps, to a certain extent, peculiar to Stirling. One which ought not to pass without remark, is the great number of charitable institutions, on which so large a portion of the people have a claim, training them to a species of pauperism ; but no one can entertain a doubt that the circumstance I have been endeavouring to illustrate, is one of the main and most malignant fountains of the great and spreading evil.

Fuel.—The fuel employed is pit-coal from Bannockburn, Greenyards, &c., which being only two or three miles from Stirling, the

price is only to a trifling extent enhanced by the expense of carriage. Yet coal is dear. An advance on the price took place about five years ago. Before that time, the best coal could be obtained for little more than 6d. per cwt., or from 10s. to 11s. per ton. Since that time, it has cost from 8d. to 9d. per cwt., or from 13s. 4d. to 15s. per ton. A few peats are brought from Blair-Drummond moss, and sold for fuel.

MISCELLANEOUS OBSERVATIONS.

The most remarkable differences between the present state of the parish of Stirling and that which appears to have existed at the date of the former Statistical Account, are the following :

1. A great increase of the town, both in extent and population.
2. A great improvement of the buildings, by which the comfort of the inhabitants has been augmented, and the natural beauty of the situation has been set off to advantage by handsome, and, in some cases, splendid edifices, both public and private.
3. An immense improvement of the streets in respect of slope, causeway, and side-pavement; and the lighting of the town with gas, which has also been introduced into the churches and meeting-houses, as well as many private dwellings.
4. New institutions, literary, professional, charitable, and religious.
5. A considerable increase of the trade of the town and port, and decay in some kinds of manufacture, with extension of others, in particular that of woollen goods.
6. A considerable change of the relative proportions of the adherents of the Established Church and those of the Dissenting denominations; the latter now bearing a smaller proportion to the former.
7. The character of the people does not appear to have improved; but the contrary. A great number of young persons have been, and are, growing up regardless of the Sabbath and of religious ordinances; and habits of intemperance have been increasing among the lower orders. This may be traced in part, to the increase of the population without a corresponding augmentation of the provision made for their pastoral instruction, &c.; to the decay of parental training and habits of domestic piety, consequent on this increasing disproportion; to other causes, which have already been particularly adverted to; and to others still, which might require more argument, and a larger induction of facts to establish them, than could here be admitted.

Several other remarks, which might with propriety have been introduced here, have been anticipated in various parts of this article.*

* Besides the gentlemen whose aid I have already acknowledged, I have to express the obligations I am under to Mr William Drummond of Coney Park, for the account given of the Zoology and Botany of the parish ; to James Lucas, Esq. and James Chrystal, Esq. for valuable assistance in the department of Ancient Buildings and antiquities ; and to William Galbraith, Esq. town-clerk, for the accurate and important information to which he has given me access, on many points, on which official authorities were necessary to be consulted. I am not permitted to name the gentleman from whom I have received valuable help, in relation to the Meteorology of Stirling.

Note respecting the erection of the building now occupied by the East and West Churches.—In writing the history of this building, after a careful comparison of all I had read, and all the information I had otherwise obtained on the subject, I adopted the account given in the text as, upon the whole, the most probable. But I have since seen amongst the ancient records in the town-clerk's office, certain charters, of date 1460, 1471, and 1472, of James II. or III. to William Bull, chaplain of the Holy Rood, in the parish church of Stirling ; of Bull to Malcolm Fleming ; and of Fleming to the magistrates of Stirling, of the site of the Tolbooth ; and an agreement between the magistrates and the Abbey of Dunfermline, of which the church of Stirling held, of date 1507 ; which seem to establish the two following facts ; viz. 1st, that, as early as 1460, there existed, on or near to the site of the present building, a parish church, called the church of the Holy Rood ; 2d, that the choir of the present building, that is, the East Church, described as the choir of the Church of Stirling, was in 1507 in process of being erected. It is remarkable, too, that in none of these documents is there the slightest reference to any connection between any of these ancient buildings and any convent of friars, black or gray. The Church of the Dominican Convent in Spring-Garden, however, does appear from other documents to have been at an earlier period, that is, in the fourteenth century, used by the inhabitants as a parish church.

October 1841.

GENERAL OBSERVATIONS ON THE COUNTY OF STIRLING.

THE name of this county first appears in the *Rotuli Scotiæ* about 1296, under the form of Stryvelyn, or Stryveline, or Stryveling. Boethius (Lib. x. p. 204) pretends that Sterling money derives its name from Stirling, because Osbert, a Saxon prince, after the overthrow of the Scots, established a mint here. This, however, is a mistake, as it is well-known that Sterling money derives its name from the merchants of the Easterlings, who first taught the people of the west to transact money matters in a business-like manner.

It is worthy of remark that this county, situated upon the confines of no less than four kingdoms, having the Northumbrian and Cumbrian dominions on the south, and those of the Scots and the Picts on the north, was for ages a field of much contention and bloodshed; the castle of Stirling alternately coming into the possession of the strongest and the bravest for the time. Buchanan terms it *Sterlinum*. Probably Grose, in his *Antiquities*, is right when he derives the ancient name Stryvelyn from the Scots word *to strive*. The old burgh seal of Stirling has on one side of it a cross and a bridge with this motto, "*Hic armis Bruti, Scoti stant hoc cruce tuti*;" on the reverse, a fortalice surrounded with trees, with the following motto, "*Continent hoc nemus et castrum Strevelense*." Another seal has a wolf upon a rock, with "*oppidum Sterlini*." This important county is, in its greatest length, 45 miles, and in its extreme breadth 18 miles. It is bounded on the north by Perthshire, and part of Clackmannanshire; on the west by Argyleshire; on the south by Dumbartonshire and Lanarkshire; and on the east by the county of Linlithgow.

Its area comprehends about 489 square miles, or 312,960 acres, of which about 200,000 are cultivated, 50,000 uncultivated, and 62,960 unproductive. This is exclusive of the parish of Alva, which, since the beginning of the seventeenth century, has been attached to Stirlingshire, although upwards of four miles distant

from the nearest point of that county, it being surrounded on all sides by the shire of Clackmannan, except on the north, where it is bounded by a part of Perthshire. Since the passing of the Reform Bill, Alva has been politically incorporated with Clackmannan; but for judicial purposes, it is still connected with the county of Stirling. The most striking feature of this portion of the county is the Ochil range of hills, generally termed here the Alva hills. These hills are chiefly composed of trap, of which the prevailing sorts are clinkstone, amygdaloid, and porphyry. Basalt is sometimes visible, and greenstone very rarely. The mineral treasures of the Ochils lie chiefly on their southern side, in Clackmannan and Stirlingshires. The most remarkable of these are the silver ore of Alva and copper ore of Airthly, both at one time furnishing materials to the Scottish royal mint, and cobalt ore, prevalent in both places. The zeolites, agates, jaspers, and the Ochil eye pearl are too well-known to require description. A very interesting portion of the geology of Stirlingshire is to be found near Loch Lomond, and the most striking feature of the district here is the lofty Ben Lomond, which, viewed from certain positions, presents a noble and majestic appearance, rising to the height of 3200 feet. This hill is composed chiefly of mica-slate, occasionally passing into talc slate, intermixed with beds of felspar, porphyry, and greenstone, lying in a position conform with the strata of the including rock. Dr Macknight remarks, that in this species of mica-slate, there is much quartz, particularly towards the summit of the mountain, the rocks appear remarkably penetrated and traversed by that substance, in veins and masses of every size and form. Indeed, it is found to be the prevailing ingredient throughout the whole formation, and often gives the mica-slate a whitish colour, resembling at a distance that of pure quartz. I did not, however, observe quartz in regular beds. To the north, the mountain has a great precipice, inclining considerably to the east, which is very rude and awful. Its peculiar position on the edge of the Highlands, skirted as it is by a magnificent sheet of water, renders it a peculiarly striking object. A more full description of the whole will be found in Mr Patrick's account of Dumbartonshire, contained in this work. A great stripe of greywacke, a continuation of that which runs through Dumbartonshire, also runs through the western border of the county. The other particulars respecting the Geology of Stirlingshire will be found pretty accurately detailed in the several Accounts of the parishes.

The Civil History of this shire forms a portion of the history of Scotland, and is so intimately connected with it, that it would be almost superfluous to treat of it in a local Account such as this. The position of Stirling Castle, amidst extensive marshes, and near to the banks of the river Forth, put it into so peculiar a position, that it became, in a great measure, the key between the north and south of Scotland; and it became difficult for moving armies to pass from the one to the other, without approaching this the most noted of Scotland's battle-fields. It was not, however, till the time of the Stewarts, that Stirling became a royal residence, and it is from that period, that its history assumes a truly national character.

The Agriculture, the nature of the soil, and the various products which it yields, are very fully detailed in the Accounts of the parishes themselves.

The county is divided into 25 parishes. The valued rent in 1674 was L.108,509 Scots. The annual value of real property, as assessed in 1815, was L. 218,761 Sterling. The population in 1831 was 72,621; the inhabited houses, 10,450; the families, 15,351. The Parliamentary constituency in 1839 was 2320. The only royal burgh in the county is Stirling, situated about 25 miles north-west of Edinburgh. There are, however, several towns and villages of considerable consequence in it, such as Falkirk, St Ninians, Larbert, Kippen, Kilsyth, Airth, Buchlyvie, Campsie, and Killearn. The county of Stirling is watered by the Forth, the Teith, and the Carron, besides several smaller streams.

TABLE shewing Ecclesiastical State, &c. of Parishes in the County of Stirling.

Parishes.	Population in 1881.	Ecclesiastical State.				Schools in Par.		Parochial Schoolmasters' Emoluments.				Annual Amount of Contributions to the Poor.			
		Farms, be- longing to Etabl. Ch.	Individuals Do. Do.	Families of Disseminators or Seeders.	Individuals Do. Do.	Amount of Parochial Mi- nisters' stipend	Salary.	Fees.	Total.	From as- essment or voluntary contrib. by Heritors.	From Church col- lections.	From Alms, Legacies, Mortcloths, &c.	Total.		
Falkirk, .	12748	See text.	...	...	...	L.400 0 0 44 b. meal, &c. }	L.34 & L.17.	...	...	L.950 0 0 L.10 to L.20.	L.65 0 0	Int. of L.600	L.693 0 0		
Fintry, .	1051	...	...	...	...	L.91 17 0	34 0 0	...	...	...	30 0 0	Do. L.400	60 0 0		
Gargunock,	908	195	880	...	...	L.150 0 0	25 13 3	...	...	...	...	Do. L.266 }	...		
Killearn, .	1206	...	...	...	...	184 b. meal, &c. }	31 0 0	...	...	...	...	Do. L.365 }	...		
Strathblane,	1030	...	...	...	...	L.3 0 0	34 4 0	L.15	L.49 4 0	...	50 0 0	L.4 0 0	54 0 0		
Buchanan,	600	110	...	10	...	L.231 17 9	31 0 0	...	...	...	30 15 0	Int. of L.515	...		
Drymen, .	1690	...	1350	...	...	158 6 8	31 0 0	...	...	...	23 0 0	Do. L.400	...		
Denny, .	3843	See text.	...	...	...	319 b. 2 p. meal, }	31 0 0	...	...	...	35 9 0	Do. L.185	...		
Kilsyth, .	4297	...	...	...	...	L.7 3 9	34 4 0	...	...	72 0 0	14 5 0	...	...		
Baldernock,	805	...	83	39	...	16 chalders.	L.30, L.12, }	...	...	See text.	...	...	...		
Alva, .	1300	262	1185	60	...	L.250 0 0	34 4 0	...	...	...	16 10 0	Do. L.500	...		
Polmont,	3200	...	2700	...	...	63 bolls meal, }	29 18 10	...	...	...	...	...	...		
Bothkennar,	903	...	...	...	...	L.33 0 0	34 4 0	...	...	...	84 14 0	...	...		
Muiravonside,	1540	...	1284	...	...	40 bolls bar. 32 }	34 4 0	...	...	...	15 0 0	Do. L.600	...		
Logie, .	1943	244	1086	163	...	503 17 chalders.	34 4 0	...	...	...	...	...	80 0 0		
Campsie,	5109	...	...	...	...	17 chalders.	30 0 0	L.38	L.68	37 14 0	...	...	...		
Kippen,	2085	...	...	...	...	20 chalders,	34 4 0	...	...	18 0 0	L.50 to L.60.	Do. L.100	226 0 0		
Slamannan,	1093	...	...	...	...	16 chalders,	L.27 15 0 }	...	...	See text.	...	...	120 0 0		
Airth, .	1850	300	1350	90	...	L.247 18 0	34 4 0	...	...	See text.	...	...	...		
Balfon, .	2057	...	...	...	...	18 chalders.	34 4 0	...	...	50 0 0	40 0 0	Do. L.360	...		
St Ninians,	9552	...	4428	...	...	L.150 0 0	25 0 0	...	...	See text.	...	...	...		
Larbert, }	4962	...	...	...	...	19 chalders.	34 4 0	...	...	250 0 0	...	L.120	...		
Dunipace, }	8499	1016	4486	...	...	1200 16½ chalders.	34 4 0	L.60	L.94 4 0	26 0 0	70 0 0	L.8	104 0 0		
Stirling, .						Text, L.250, L.200, 19	...	...	...	235 9 6	250 18 0	L.38 16 10	525 4 4		

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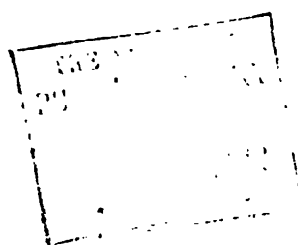
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CLACKMANNAN.

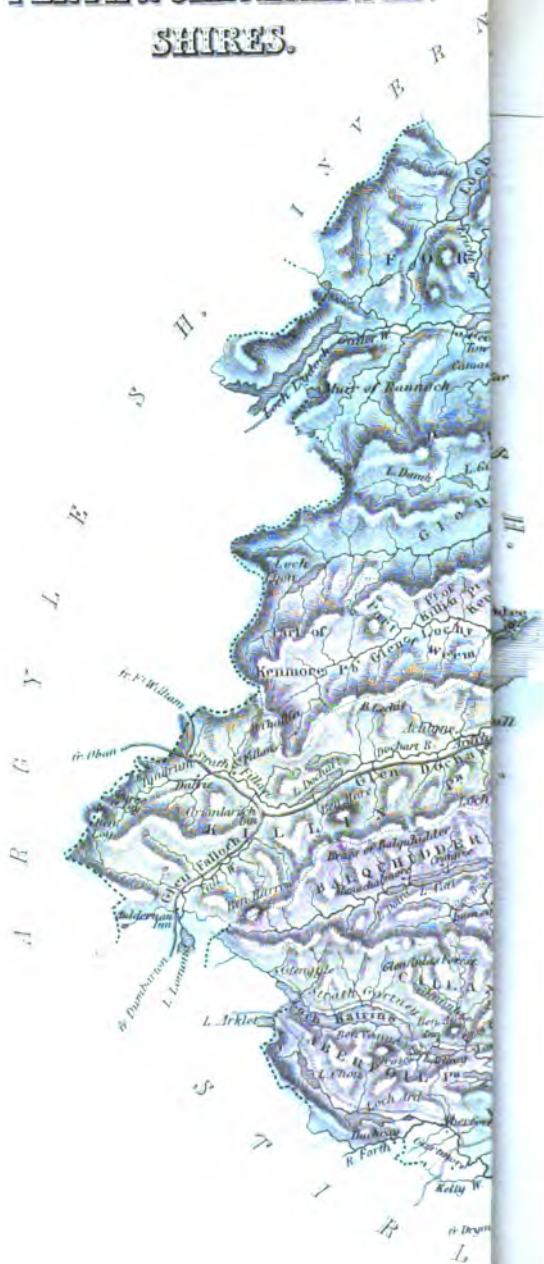
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PERTH & CLACKMANNAN SHIRES.



PARISH OF ALLOA.*

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. PETER BROTHERSTON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name, Boundaries, &c.—THE name has been variously spelled at different periods. In the charter granted by King Robert I. in the year 1315, to Thomas de Erskyne, it is called Alway; in some subsequent ones, Aulway, Auleway; and more recently Alloway. "In ancient Gothic," says the late Rev. Dr Jamieson, "*al* signifies water; and *aull, gurgis fluminis et profundiora loca maris*. Thus *aull waeg* would signify the way to the sea, or the sea-way." This seems to be the most probable etymology of the name.†

* Drawn up by Mr William Brodie, Schoolmaster of Alloa.

† See Dr Jamieson's Illustrations of Slezer's Theatrum Sootiæ, folio, first published in 1693, reprinted in 1814, also in 1718, and 1719.

The very respectable writers of the former Statistical Account supposed Alloa to be the *Alauna* of the Romans, which opinion is supported by Camden and others. They also suggested that the name may have been derived from the Greek word *Alaea*, a rural feast of the Athenians, which was adopted by the Romans, and answered to our harvest home. (See Old Statistical Account, Vol. viii. p. 593, note.) Kennedy in the notes to his Glen Ochel, a poem, (Vol. i. p. 305,) gives, as the derivation of the name, three Gaelic words, signifying *the steepy bank by the still-flowing stream*,—a description which does not apply to the banks of the Forth, at least in this parish. A different etymology was proposed by an eminent Celtic scholar and antiquarian, the late venerable John Coventry, Esq. of Devonshaw. In the following extract of a letter to the writer of this article in August 1835, that gentleman gave his opinion:—"I would by no means have recourse to a Grecian festival for a name to Alloa, but would rather prefer a name alluding to Christianity, and would have more satisfaction in deriving it from the Celtic or Gaelic, the original language of Britain. Shaw, in his Dictionary, makes the word *Alla* to signify the Most High, and *oigh* to be the name for virgin; literally, a church dedicated to the most high Virgin. You will recollect, that in those primitive times, the Catholics treated the Virgin Mary with great veneration. It has occurred to me these many years, that Allaoigh is the original name of Alloa, and it has undergone so little variation, that it may still be easily traced. To illustrate the Celtic word *oigh*, I must bring in an anecdote relative to the battle of Inverkeithing. When the battle was lost, the Highlanders fled to the Castle of Pitreavie as an asylum, invoking the Virgin for protection in their native words, *oigh! oigh!* They put their backs to the walls of the castle, and continued to protect themselves with their drawn swords, when the people within threw down stones from the bartisan, and killed the poor fellows. It was remarked in the country, that, from that day, the Wardlaws of Pitreavie went like snow off a dike."

The parish consists of a town and a landward district, and extends about 4 miles from east to west, by about 2 miles from north to south, and may contain $7\frac{1}{2}$ square miles.

It is bounded on the north by Alva and part of Clackmannan ; on the south, by the river Forth ; on the east, by Clackmannan and the Black Devon ; and, on the west, by the river Devon and parish of Logie. The town of Alloa is situated about a mile from the eastern extremity of the parish, in $56^{\circ} 7'$ of north latitude, and $3^{\circ} 46'$ of west longitude from Greenwich. In the river, which is here 500 yards broad, and separates into two branches, there are two low islands called *inches*, one of which, nearest the town, is a valuable farm of 80 acres.

Topographical Appearances.—The figure of the parish is exceedingly irregular, a section of Clackmannan parish penetrating it on the north side ; and the sinuosities of the Forth extend it, on the south side, to five and a-half miles in length. The low grounds, lying on the banks of the river, are of a fine fertile carse soil. The subsoil of part of it is a strong clay, fit for making bricks and tiles. The banks that arise from the carse, are mostly composed of gravel, with a fine loam near the surface. On the higher grounds, towards the north, the soil is thin, on a cold till bottom ; but by draining, of late years, it has been greatly improved. This parish contains no mountains or high hills ; but its finely diversified surface, its little hills and fertile valleys, form a richly varied landscape. From any of the eminences near the town, scenery is presented to the eye, almost unrivalled for picturesque beauty, if not for magnificence. To the eastward, embosomed in trees, is seen the ancient Tower of Alloa, from the summit of which, although situated on flat ground, part of nine counties can be discerned. About a furlong north-east of the Tower, on a gentle elevation, is the new and elegant mansion of the Earl of Mar and Kellie. Beyond Alloa Wood, Clackmannan Tower crowns the summit of the next rising ground ; while, on either side of the expanding Firth, innumerable beauties arrest the attention in the rich vale below. On turning to the north and west, a panorama of no ordinary splendour meets the eye : on one side the lofty Ochils, bounding the view, and covered with verdure to their summits ; on the other, the numerous windings of the river ; Stirling, with its finely elevated castle ; and beyond, in the blue distance, the gigantic Benledi and Benlomond, with others of our Scottish Alps.

" And, brightening all, the Forth, with gentle pride,
Gliding along the vernal-verdured shore,
Calm, clear, and mighty, deep and dignified,
Constant as day, abundant as of yore;
So that the valley laughs to see his tide
Lie in its lovely lap, and sport from side to side!"

The Firth of Forth * and the adjacent scenery seem to have undergone little alteration, in their general outline at least, since they were described by Sir Robert Sibbald, about one hundred and thirty years ago, as follows:—

" Tot campos, sylvas, tot regia tecta, tot hortos
Artifici dextra exultos, tot vidimus arces,
Ut nunc Ausonia, Fortha cum Tibride certet.

Such fields, such woods, such stately piles appear,
Such gardens grace the earth, such towers the air,
That Forth with Roman Tiber may compare."

The height above the level of the Forth of some of the rising grounds of this parish was ascertained, by barometrical measurement, on the 5th October 1839, expressly for this Account, by Mr John Mackie, Mining-Engineer, F. G. S. Gartmorn Hill, the highest of these, is at the north-eastern extremity of this parish, and is 390 feet.

Meteorology.—The following is the result of observations made at Alloa, by means of a register-thermometer, during the year 1822:—

	Temp. of the coldest nights.	Temp. of the warmest nights.	Aver. Temp. of the month.		Temp. of the coldest nights.	Temp. of the warmest nights.	Aver. Temp. of the month.
January	1, 28°			August	1, 40		
	18, 30	47°	35.19		21, 57		48.35
February	12, 30			September	27, 32		
	15, 30	48	38.42		2, 55		43.15
March	7, 29			October	24, 35		
	30, 29	48	38.41		31, 49		41.8
April	20, 29			November	5, 39		
	2, 45		36.5		27, 48		43.1
May	26, 34			December	14, 25		
	3, 55		44.2		24, 45		34.14
June	12, 43						
	24, 59		50.		404	614	501.96
July	5, 40						
	21, 59		48.7	Average,	38.66°	51.16°	41.83

From the above table it appears that the average of the coldest nights is 38.66°; that of the warmest, 51.16°; and the average for the year, 41.83. January, usually the coldest month, was remarked, in 1822, as having put on a milder aspect; and many plants which flower late in autumn, and early in spring, were then

* *Florida*, Gothic, mouth of a river;—whence *Forth* as well as *frith*,—the latter sometimes spelled *frith*, and supposed to be derived from the Latin *fretum*, (a narrow sea), a less probable etymology.

blooming. The average temperature in January 1823 was only 28.5.

From observations regularly made by Alexander Bald, Esq. at Craigward Cottage, with a well-regulated thermometer at a north exposure, at 10 A. M. every day, from June 1837, it appears that the average temperature for the last six months of 1837, was $50\frac{5}{8}^{\circ}$; that of the whole of 1838, $44\frac{1}{2}^{\circ}$; and for the whole of 1839, $45\frac{2}{3}\frac{1}{8}^{\circ}$. The average temperature of each month in 1838 and 1839 was as under:—

1838.		1839.	
January,	28.14	January,	32.14
February,	27.23	February,	35.6
March,	37.6	March,	37.9
April,	42.13	April,	44.3
May,	50.24	May,	51.16
June,	56.15	June,	58.5
July,	61.1	July,	59.8
August,	58.17	August,	58.3
September,	53.21	September,	53.18
October,	46.27	October,	43.26
November,	35.27	November,	40.23
December,	35.	December,	34.2

The most generally prevailing winds, as well as storms, are from the south-west; and, although they frequently bring rain, they are always accompanied by a mild temperature. The least frequent are from the north and north-west. The wind frequently blows from the east and north-east for some time in the spring, when it is usually dry and cold,—the westerly winds being generally mild and rainy. Considerably less rain falls here than on the high grounds towards the east and west, or in the more immediate neighbourhood of the Ochil hills, which are believed to attract and carry away the clouds from the vale of the Forth.

The quantity of rain that fell here during 1838 and 1839, has been ascertained by a rain-gauge kept in Mr Bald's garden at Craigward Cottage, which is elevated only a few yards above the level of the Forth, and is as under:—

1838.		1839.	
January,	1.22 in.	January,	2.28 in.
February,	0.33	February,	3.20
March,	4.5	March,	3.6
April,	1.33	April,	1.3
May,	2.7	May,	1.12
June,	6.6	June,	2.13
July,	3.1	July,	3.10
August,	4.3	August,	2.
September,	3.4	September,	5.20
October,	3.13	October,	3.12
November,	2.19	November,	2.19
December,	2.14	December,	3.34

Prognostics of Weather.—The following signs of rain (from Dr Jenner's poem on that subject) are also observed here:—

The walls are damp, the ditches smell;
 Closed is the pink-eyed pimpernel.
 Loud quack the ducks, the sea-fowl cry;
 The distant hills are looking nigh.
 Low o'er the grass the swallow wings;
 The cricket, too, how loud it sings.
 The wind, unsteady, veers around,
 Or settling in the south is found.
 The whirling wind the dust obeys,
 And o'er the rapid eddy plays.
 The leech,* disturb'd, is newly risen,
 Quite to the summit of his prison.

Climate.—The whole parish, although the greater part of it lies

* A cheap weather-guide is a leech, in an eight ounce phial glass, three-fourths filled with water, covered with a piece of linen rag, and kept in a cool place, the water being changed once a week in summer, and once a fortnight in winter. In serene weather, and during frost, the leech lies at the bottom of the glass, rolled together in a spiral form. Before rain or snow, it creeps to the top of its lodging, and there remains till the weather is settled. Before wind, it appears in rapid motion. Some time before thunder and rain, it remains almost constantly above the water, and appears in great uneasiness.

Swallows fly close to the ground, not only before rain, but in continued fine weather, chiefly in the mornings and evenings, when the air is moister below than above; for then, the swallows finding no insects in the upper regions, confine their flight to the lower. Insects, when tempted by a dry and comfortable state of the atmosphere, soar to the supernal regions, whither the swallows pursue them. Again, swallows, and especially swifts, are frequently to be seen flying in the midst of thunder clouds. In fact, a good deal of nonsense has been written on the subject of prognostications of the weather by animals, which has arisen chiefly from considering the *dicta* of inaccurate observers as sound. So much for prognostics of the weather from atmospheric phenomena, and from animals. The following are a few of those from vegetables.

In every nook and sheltered dell,
 Are faithful monitors, that tell
 How pass the hours and seasons by.

Many species of flowers are admirable barometers. *Convolvulus arvensis* and *C. sepium* (small and great bindweed), *Anemone nemorosa* (wood anemone), and *Oxalis acetosella* (wood-sorrel), close on the approach of rain. *Nymphaea alba* (white water-lily), the most magnificent of our wild flowers, opens about seven in the morning, and closes about four in the afternoon. *Arenaria* (sandwort) opens about nine A. M. and shuts between two and three P. M. *Anagallis arvensis* (scarlet pimpernel) is called the poor man's weather glass, because it never expands its corolla in moist or rainy weather, but opens, on fine days, at eight A. M. and closes at four P. M. *Cichorium intybus* (wild succory) opens and closes at same hours. *Bellis perennis* (the mountain-daisy) is open daily in fine weather. If *Stellaria media* (chickweed) fully expands its flowers, no rain will happen for four hours or upwards. When it half conceals its miniature white flower, the day is generally showery; but if it is entirely shut up, a continued rain may be expected. These are facts worth knowing, not merely to the naturalist, but to the traveller, the sportsman, the labourer, and indeed to every one who spends any part of his time in the fields. From a series of observations on the precise time that the flowers of different plants open, expand, and shut, Linnaeus endeavoured to form a botanical time-piece by means of 46 different flowers. In his *Philosophia Botanica*, (§. 335,) Linnaeus has divided the solar flowers into three classes:—1. *Meteoric flowers*, which expand sooner or later, according to the cloudiness, moisture, or pressure of the atmosphere; 2. *Tropical flowers*, that open in the morning, and close before the evening; becoming earlier or later, as the length of the day increases or decreases; 3. *Equinoctial flowers*, which expand at a certain hour of the day, and for the most part close at another determinate hour.

low, is considered to be very healthy; and the town being situated by the side of a great river, where the regular flowing of the tide is attended by a strong current, damps are thereby cleared away, and the atmosphere rendered fresh and pure. The Firth of Forth, expanding eastward till it falls into the German Ocean, certainly contributes to moderate both the summer's heat and winter's cold. The Ochil Hills, also, from their vicinity, give all this parish an advantage in regard to climate, by protecting it from the piercing north winds. There are no diseases peculiar to the town or parish. Fevers prevail at certain seasons, but they are seldom of a malignant nature, and are less fatal than in some of the neighbouring parishes. Agues, when the last Statistical Account was written, were "scarcely ever heard of."

Hydrography.—Wells. There are several spring-wells in the parish; but their waters have never been carefully analyzed. Some of them have evident marks of being chalybeate, others hold in solution carbonate of lime, which harmless substance, although it occasions a degree of hardness, and renders the water unfit for washing and bleaching, does not make it less suitable for culinary purposes. Most of the wells belonging to private families in the town, are of this description. One of these wells or springs was within Alloa House, and is described in the former Statistical Account, as "strongly impregnated with steel." At the east end of the town, is a spring of very pure water, apparently chalybeate, which, from time immemorial, has been called the King's well; and at Tullibody is one of excellent water, the Lady's well,—a name coëval with the early days of Popery. The town of Alloa is well supplied with excellent water, brought by pipes, at great expense, from Gartmorn Dam (of which afterwards), about thirty-five years ago.

Rivers.—The River Forth, which rises at the eastern side of Ben Lomond, extends along the south side of the parish by a very circuitous course, a distance of four miles and a half to the westward of the town; and about one mile to the eastward, where it ceases to be a river and becomes a firth.* At Alloa ferry, the river is about half a mile broad at high water, and it is navigable beyond Stirling, as far as the "Cruives" of Craigforth. Ships of 800

* By an old Scotch Act of Parliament, the "Pow" of Alloa, (so the act renders our word harbour), is between the river and the sea, as to the salmon-fishing. Long has been the litigation, and very great the expense of determining, upon scientific principles, where the river ends and the sea begins in the river Tay and other rivers, for regulating the kind of nets to be used in each of these divisions.

tons burden come up as far as Alloa. The windings of the Forth, commonly termed "links," are very remarkable, and are well described by the old English poet, Drayton, in the following lines, applicable to another serpentine river:—

Ouse, in measured gyres, doth whirl herself about,
That, this way, here, and there, back, forward, in and out;
And, like a sportive nymph, oft doubling in her gait,
In labyrinth-like turns, and twinings intricate,
Through those rich fields doth run.

The distance from the quay of Alloa to that of Stirling, measured in the middle of the stream, is about 16 miles, and to the old bridge of Stirling, nearly 20 miles; whereas the distance by land between these towns does not exceed 7 miles by the turnpike-road, and is about 5 in a direct line.

Tides.—The spring-tides at Alloa harbour rise about 22 feet, the neap-tides about 15 feet; and in the harbour there is about 3 feet deeper water than in Leith harbour. It has been asserted, upon unquestionable authority, and from levels actually taken, that the top of the pier at Leith is upon a level with the bottom of the quay at Alloa. Hence, the level line of high-water, between Leith and Alloa, is an inclined plane, rising towards Alloa: Otherwise the town of Leith would be deeply flooded at full tide.*

The Devon, or North Devon, rises in the parish of Blackford,

* There is a singular circumstance connected with the tides in this district. There are what are called the double or "leaky tides," chiefly observed at high and low water, during spring-tides. Their nature is this; when the tide has flowed apparently to its full height, it ebbs and flows downwards, until it has sunk from a foot to 15 inches perpendicularly. The flowing then returns, and frequently overflows the first flowing, above a foot in height, so that vessels which may have grounded in leaving Alloa harbour during the first tide, have floated off freely with the second tide. Hence, it is a common question at Alloa harbour, when the spring-tides begin to ebb, "Is the tide away for all tides?" A similar ebbing and flowing takes place at low water during the spring-tides. This singular phenomenon has not been thoroughly investigated in a philosophical manner; but the apparent cause is the very narrow part of the river at Queensferry, with the sudden great expanse of the north and south shores, both above and below that point.

These "leaky tides" were taken notice of by Sir Robert Sibbald in his *History of Fife and Kinross*, in which is inserted an interesting letter respecting them, (without date), by the Rev. Alexander Wright, then minister of Alloa.

There is a curious traditionary and superstitious account of these double tides,—which is, that when St Mungo, the tutelary saint of the district, was proceeding in a vessel with some of his ecclesiastics to Stirling, the vessel ran a-ground and could not be got off, from the falling of the tide; that while he and his friends ardently wished for the return of the tide, it did return with an overflow, so that the saint proceeded upon his mission, and the double tides have returned periodically ever since.

A somewhat similar phenomenon occurs at Southampton and Portsmouth, where there is a kind of "double tide" every time the sea flows, owing to the Isle of Wight, which is opposite to them; for when the first tide is, the flow comes in by a place called the Needles, at the west end of it,—and by the time it goes round the island, it is beginning to ebb; so when it comes to St Helen's at the east end of it, this makes a kind of second tide, though not so high as the first, unless a strong wind comes along with it.

in the county of Perth, and, descending with impetuosity from the Ochils, where its course is to the east, till it reaches the Crook of Devon, in the parish of Fossaway; it there makes a very acute turn towards the west, and proceeding placidly in that direction through a highly picturesque and beautiful vale, often denominated the Arcadia of Scotland, falls into the Forth at the village of Cambus, about two miles west from the town of Alloa. Exclusive of its windings, the course of this river is more than twenty-six miles, though the distance in a direct line from its source to its *embouchure*, (directly north from, and opposite to its source), does not exceed six miles. Its whole course is famed for its beauty and fertility; for it flows, “*arva inter, nemorisque umbras, et pascua læta.*” The Black Devon, or South Devon, which forms part of the boundary of this parish to the eastward, has its source among the Saline hills in the county of Fife. It flows westward, in a direction nearly parallel to the north Devon, and falls into the Firth of Forth opposite Clackmannan. In dry seasons, it is a small stream, most of its waters being then collected in dams or reservoirs, for the supply of mills and other machinery.

Gartmorn Dam.—Nearly 140 years ago, the celebrated John, Earl of Mar, who had a great mechanical turn, and attended much to the improvement of hydraulic machinery (the steam-engine not having been then brought forward,) caused a strong dam-head to be thrown across the Black Devon, at Forest-Mill, in the parish of Clackmannan, by which he raised the bed of this river, 16 feet higher. From the top of this dam-head, he carried an aqueduct westward, about four miles, which carried the water into Gartmorn dam, perhaps the largest artificial lake in Scotland, covering, when full, above 160 imperial acres. It is about 160 feet above the level of the Forth, and 92 feet above Alloa. In some places, it is 36 or 37 feet deep, being sufficient to carry a seventy-four gun ship. Prior to 1785, only a temporary dike existed. A dam-head was then built of hewn stone, measuring upwards of 320 yards, at an expense of several thousand pounds. In the year 1827, this embankment threatened to give way, in which case, it would have swept away, with the torrent of its waters, all the lower part of the town lying in its course. It then underwent a complete repair, by Mr John Craich, the present manager of the colliery, at an expense of only £300; whereas, in the opinion of a celebrated engineer, the sum necessary for performing the work effectually would be £3500. This lake is situated at the north-

east extremity of the parish, about two miles from Alloa. Its waters form a permanent supply for driving the hydraulic machinery of the Alloa colliery, and the water-wheels of various manufactories. The temperature of the water, at the depth of 15 feet, was 52° Fahr. and of the air 61°, on 10th September 1836, at four o'clock P. M.

Zoology—Mammalia.—The wild animals of this class which have been found in this parish, and the adjoining Firth, are the following :

<i>Sootophilus murinus</i>	<i>Martes Foina</i>	<i>Arvicola agrestis</i>
<i>Plecotus auritus</i>	<i>Lutra vulgaris</i>	<i>Lepus timidus</i>
<i>Erinaceus Europæus</i> (1.)	<i>Vulpes vulgaris</i>	<i>Cuniculus</i>
<i>Sorex araneus</i>	<i>Sciurus vulgaris</i> (3.)	<i>Cervus Capreolus</i> (6.)
<i>fodiens</i>	<i>Mus rattus</i>	<i>Phoca vitulina</i>
<i>Talpa Europæa</i> (2.)	<i>decumanus</i> (4.)	<i>Phocæna communis</i> (7.)
<i>Meles Taxus</i>	<i>musculus</i>	<i>Rorqualis Borealis</i> (8.)
<i>Mustela putorius</i>	<i>sylvaticus</i>	<i>Phocæna Grampus</i>
<i>Erminea</i>	<i>messorius</i> (5.)	<i>Globicephalus deductor</i> (9.)
<i>vulgaris</i>	<i>Arvicola amphibia</i>	<i>Beluga leucas</i> (10.)

(1.) The hedgehog was not known as an inhabitant of this parish when the last Account was written. It is now found in the woods. This innocent, although proscribed animal, has been most absurdly accused, of sucking cows. It feeds altogether upon slugs, beetles, cockchafers, and other insects, which are extremely injurious to the agriculturist, both in their larva and perfect state.

(2.) Worms and slugs, &c. are the food of the mole; and, although in its mining process, it undoubtedly overturns many growing plants, yet it is probably, upon the whole, more useful than injurious to man, wherever it exists in this parish.

(3.) The squirrel, which was also unknown here when the last Account was written, is now numerous in the woods. This nimble and elegant animal has been lately accused by a certain author of destroying the small birds. This must be a mistake; for it lives entirely on vegetable food, and is particularly fond of nuts and acorns. When feeding, it sits erect, and uses its fore-feet like hands. It is a curious circumstance, and not generally known, that most of those oaks, which are called spontaneous, are planted by the squirrel, which thus performs the most essential service to the British navy.

(4.) The brown or Norway rat (originally from Asia in 1750) is too numerous throughout the parish. It is said by some naturalists, but without sufficient evidence, to have nearly extirpated the original British, or black rat, which is very seldom seen here.

(5.) This is the smallest of British quadrupeds, measuring only 2½ inches, from the nose to the tail, and weighing not more than one-sixth of an ounce.

(6.) Roe-deer are not mentioned among the wild animals in the Old Statistical Account; but have been seen occasionally, for more than thirty years, in Tullibody woods. They are more rarely observed of late years.

(7.) Porpoises and seals are constant inhabitants of the Firth here. The former not only destroy the salmon, but prevent them from entering the river. The latter are also equally inveterate and destructive enemies of the herring.

(8.) One of this species, in 1808, ran itself ashore on the banks of the Forth, between Alloa and Cambus, where it was discovered by two ploughmen, who endeavoured for a long time to kill it with their knives, but without effect, the animal at the same time making dreadful exertions to get away. At last a surgeon pointed out the mortal part,—and, by applying a spit, they soon effected their purpose.

(9.) On the 7th of October 1814, a number of large animals of the cetaceous order were discovered in the Firth of Forth, opposite Tullibody House. The late John Moubray, Esq. of Cambus, having ordered out all the boats in that place, which were manned by his servants, he went out, accompanied by Mr Dick, officer of excise, to attack them. They killed seven, and succeeded in driving eight more up the Devon to shallow water, where they also were killed. Two were killed a little

way off by some of Lord Abercromby's tenants, and other two went up before a steam-boat to Stirling, where they shared the same fate. On examination, they appeared to be a species of the grampus, and seemed to agree with those described by Dr Patrick Neill, to which the islanders of Orkney and Shetland give the name of the *caing whale*, having several marks to distinguish them from the common grampus. They were from 15 to 21 feet long, and from 10 to 14 feet in circumference.

(10.) A stray individual of this singular species of small whale had been for some time observed passing up and down the Firth of Forth, its fine white colour rendering it very remarkable. In June 1815, it was killed by the salmon-fishers, by means of spears and fire-arms; and was purchased by Robert Bald, Esq. Alloa, who transmitted it to Bailie Robert Johnstone, Edinburgh, who presented it to Professor Jameson for the Royal Museum. It was exhibited on the Calton Hill for behoof of the poor, when L. 40 were drawn. The skeleton was for some years in Dr Barclay's Museum, and he lectured on the anatomy of the whale while it was on the Calton Hill. The stuffed skin is now in the Royal Museum at Edinburgh. Those larger visitors are found in this river more frequently than in others farther to the north, the entrances of which are less extended, and more interrupted by banks and bars. The salmon, on the other hand, as if instinctively to avoid their enemies, are more abundant in the confined estuaries.

Birds.—The following list comprehends the more uncommon birds, known either as permanent residents, or temporary visitants of this parish :

LAND BIRDS.			
Milvus vulgaris	Sylvia sibilatrix	Arenaria calidris	
Falco peregrinus	Regulus auricapillus	Totanus hypoleucos	
Buteo nisus	Alcedo ispida	ochropus	
Circus cyaneus	Curruca atricapilla	glottis	
Strix flammea (1.)	Alauda arborea	calidris	
stridula	Saxicola rubetra	Rallus aquaticus	
Otus vulgaris	rubecula	Crex portana	
Phasianus Colchicus	oenanthe	Procellaria, or	} pelagica(6.)
torquatus (2.)	Parus cæruleus	Thalassidroma	
Columba turtur	ater	Cinclus aquaticus	
Coturnix vulgaris	caudatus	Uria Troile	
Motacilla alba	Yunx torquilla	Fulica atra	
flava	Certhia familiaris	Mergus merganser	
boarula		albellus	
WADERS and WATER-		Cygnus ferus	
BIRDS.		Phalacrocorax	} carbo
		or Pelecanus	
Carduelis aurata	Ardea cinerea (5.)	Columbus subcristatus	
Linaria spinus	Squatarola cinerea	Clangula chrysophthalmo	
Pyrrhula vulgaris	Vanellus cristatus	Tadorna Bellonii	
Sturnus vulgaris, (3.)	Charadrius pluvialis	Spathalea clypeata	
Merula iliaca	morinellus	Anas palustris	
pilaris	hiaticula	Boschas	
torquata	Rissa cinerea	acuta	
Phoenicurea rusticola	Numenius arquata	Penelope	
Emberiza Schoeniculus	Scolopax rusticola	Crocæa	
miliaria	gallinago	querquedula.	
Plectrophanes nivalis	gallinula		
Lanius excubitor	Limosa rufa		
Loxia curvirostra	Tringa Canutus		
Bombycilla Bohemica (4.)			

(1.) "If this useful bird," says Mr Waterton, "caught its food by day, instead of hunting for it by night, mankind would have ocular demonstration of its utility in thinning the country of mice, and it would be protected and encouraged everywhere. It would be with us what the Ibis was with the Egyptians." They are found in various parts of the parish, and sometimes in the top of Alloa Tower.

(2.) Commonly considered a distinct species. This beautiful bird,—

("His varied plumage like a heap of gems

On a coarse carpet spread,")

is much less numerous here than it was some years ago. This must be attributed to

the destruction of them by poachers, there being few parishes where they have more abundant shelter than here.

(3.) The starling has become plentiful here of late, being known to breed in the steeple of the old church.

(4.) This beautiful bird is an irregular winter visitant. † Specimens of it have been shot in this parish, at long intervals; the last in 1823.

(5.) There were few herons that bred here when the last Account was written. It is still a scarce bird, only a few of them now breeding in the old trees of Alloa wood, and sometimes a pair or two in the firs of the island in Gartmorn Dam. The congener of the heron, the bittern, which had then become very scarce, has totally disappeared from the parish, as has also the whimbril.

(6.) Considerable numbers of these "solitary wanderers of the deep" have been seen on the Forth at Alloa, at different times, but their appearance at such a distance from the sea is of rare occurrence, as was observed by the writers of the Old Statistical Account. It is generally believed that they leave the sea only on account of very tempestuous weather. A storm from the eastward was experienced here in the beginning of November 1840, when several petrels were shot near the Alloa ferry, and when some of them were seen at Cambus, two miles farther up the river. One of these little creatures, the smallest of web-footed birds, has been preserved, and is in the possession of the writer of this account.

All the song-birds common in Scotland are abundant here, as are the swallow and pie tribes, with all the cawing genus. In the Old Statistical Account, it is stated that only the Royston or hooded crow, bred in the parish; and that magpies, ravens, crows, and jack-daws were often seen, but did not breed there. A colony of the last now find an asylum in the roof of Alloa Tower, and a few have taken possession of the upper part of the new church steeple. The intelligent farmers here, in general, seem convinced that rooks are beneficial, not hurtful to their crops; and it has often been observed that, when the ploughman and sower are at work in the same field, the former is followed by a train of rooks, the latter being unattended, his grain remains untouched. They will indeed, sometimes steal a little corn, but that only when the ground is so hard and dry as to prevent them from digging up insects and grubs, which are their natural food.—See an able pamphlet under the title of "Farmers versus Rooks," by J. S. Menteach, Esq. younger of Closeburn, published at Ayr in 1838. The object of the author is to show that rooks, so far from being injurious to the farmer by eating his newly sown corn, render him the most essential service by devouring grubs, which destroy not only corn, but the roots of grass and growing plants of every description. A pleasing poem on this subject, entitled the "Farmer's Vision," has been privately printed and circulated among his friends, by its noble author, Lord Erskine, in whose distinguished life, one of the most pleasing features is, his long exerted zeal in the cause of the suffering animal creation.

Fishes.—The following list of the fishes found in the Forth and tributary streams in the parish of Alloa, was kindly furnished to the writer by an eminent ichthyologist, Richard Parnell, Esq. M.D., F. R. S. E.*

<i>Perca fluviatilis</i>	(<i>Esox lucius</i>)§	<i>Platessa vulgaris</i>
<i>Labrax lupus</i>	<i>Belone vulgaris</i>	 <i>flesus</i>
<i>Trigla gurnardus</i>	(<i>Scomberesox saurus</i>)	<i>Rhombus maximus</i>
<i>Cottus scorpius</i>	<i>Salmo salar</i>	<i>Solea vulgaris</i>
<i>Aspidophorus cataphractus</i>	 <i>eriox</i>	<i>Cyclopterus lumpus</i>
<i>Gasterosteus leirurus</i>	 <i>trutta</i>	<i>Liparis vulgaris</i>
<i>Pagellus centrodontus</i>	 <i>fario</i>	<i>Anguilla acutirostris</i>
<i>Thynnus pelamys</i>	(..... <i>coccifer</i>)¶	<i>Conger vulgaris</i>
(<i>Xiphias gladius</i>)†	 <i>salmulus</i>	<i>Syngnathus acus</i>
<i>Caranx trachurus</i>	<i>Osmerus eperlanus</i>	 <i>typhle</i>
<i>Mugil chelo</i>	<i>Clupea harengus</i>	(<i>Acipenser sturio</i>)**
<i>Blennius pholis</i>	 <i>sprattus</i>	 <i>latirostris</i>
<i>Anarrhichas lupus</i>	 <i>alba</i>	<i>Spinax acanthias</i>
<i>Gobius minutus</i>	<i>Alosa finta</i>	<i>Rais batis</i>
..... <i>unipunctatus</i>	<i>Gadus morrhua</i>	(..... <i>clavata</i>)††
<i>Callionymus lyra</i>	<i>Merlangus vulgaris</i>	<i>Petromyzon marinus</i>
(<i>Lophius piscatorius</i>)‡	 <i>carbonarius</i>	 <i>fluviatilis</i>
<i>Leuciscus phoxinus</i>	<i>Lota molva</i>	
<i>Cobitis barbatula</i>	<i>Raniceps trifurcatus</i>	

* Dr Parnell's elaborate contributions to the Memoirs of the Royal and Wernerian Societies, (see Vol. xiv. of the former, and Vol. vii. of the latter,) on the fishes inhabiting or frequenting the Firth of Forth, form one of the most valuable additions to the zoology of Scotland within the last fifty years. Thousands of persons never imagined that the Forth possessed any other kinds of fish than the eight or ten seen in our markets, salmon, cod, haddock, herring, skate, flounder, eel, smelt, &c. It will surprise such persons to learn that this arm of the sea contains no less than 125 species, of which 40 were not known to exist in it until they were discovered by this enthusiastic young naturalist, and six had not been previously recorded by any writer, as frequenting the British seas.

† The sword-fish has been occasionally found here; but is rare in our seas, its proper habitation being the Mediterranean.

‡ A large specimen of this very deformed fish (which is also named frog-fish, toad-fish, and sea-devil,) was captured here on the 20th September 1837. It is rare on our coasts.

§ Pikes were introduced into Gartmorn dam several years ago, much to the injury of the other fishes. One was captured there last season, weighing 16 lbs., and one some years ago of 24 lbs. weight.

|| In the Old Statistical Account, these fishes are called gaudanooks, or Egyptian herrings; and when it was written, were said to be a great help to many poor people. During the last thirty years, very few of them have been seen here.

¶ The Lochleven and some other species of trout were introduced into Gartmorn dam, soon after its formation. Dr Parnell's learned communication to the Royal Society (Transact. Vol. xiv. pp. 9 and 10,) contains an interesting account of this singular species, and of the much disputed par.

** A sturgeon, which weighed 180 lbs., was captured here in 1823.

†† Of the thornback or thorny skate, a gigantic specimen was taken in the yair at Alloa, on the 25th of November 1777. The following account of it is taken from the handwriting of the late worthy Alexander Bald, Esq. Senior.

WEIGHT.

The (total) weight, 13 stone, 7 lb., 940 pts. Dutch.

The weight of the eatable part, 8 stone, 0 lbs., 152 pts.

The weight of the head and tail, 2 stone, 7 lbs.

Those of the above within parentheses, are not in Dr Parnell's list, but have all been found in the parish ; as have also a species of star-fish (*Asterias*,) and the cuttle-fish (*Sepia officinalis*,) common on the British coasts. In 1835, a specimen of the uncommon and very beautiful opah (*Lampris luna*) was obtained from the firth here. It is common on the coast of Guinea, and but rarely caught off the shores of Britain. Its common weight is nearly 80 lbs. It has a smooth skin, without scales ; the eyes are large, and the irides of a scarlet hue, encompassed with a gold-coloured circle ; and it is destitute of teeth. The upper part of the body is of a beautiful green, blue, and violet intermixed, and enriched with a shining golden hue, like the feathers of a peacock, and speckled with white spots ; the chops are of a pale red colour ; the nose, gills, and belly silvery ; and all the fins of a bright scarlet hue.

These and innumerable other living creatures inhabit the waters which cover the surface of the globe, especially the tropical seas, where they

"Graze the sea-weed, their pasture, and thro' groves
Of coral stray ; or sparkling with quick glance,
Show to the sun their waved coats dropt with gold."

Well, then, might Oppian say, *In mari multa latent*.

"In the waters we may see all creatures,
Even all that on the earth are to be found ;
As if the world were in deep waters drowned."

The salmon, "king of fresh water-fishes," the migration of which is analogous to that of birds, is bred in rivers connected with the sea, but so remote as to be beyond the salt or brackish water. The spawning season in the Forth is believed to extend from the beginning of November to the end of January. The fry or young salmon migrate towards the sea chiefly during April and May, and return in July, August, and September, from 4 lb. to 10 lb. weight. The descent of the parent fishes to the sea commences in February, and continues till the end of April.

Much new light has recently been thrown upon the natural history of the salmon ; and the very difficult question, *what is a par ?*

DIMENSIONS.

From the tip of one fin to the tip of the other,	5 feet 9 inches.
From the tip of the nose to the point of the tail,	7 3
Across the middle of the eyes, and across the small back fins, each,	2 2
The length from the very back of the eyes to the very beginning of the tail,	3 0
The thickness of the thickest part,	0 7

is now completely set at rest by Mr John Shaw of Drumlanrig. (See Blackwood's Magazine, April 1840.)

From the result of carefully conducted experiments made by Mr Shaw of Drumlanrig, Drumpfries-shire, and other ichthyologists, it appears that the young fry do not proceed to the sea in the same year they are hatched, as has generally been supposed, but that they remain in the fresh-water over the first winter, and migrate about the May following, or when about twelve or thirteen months old. If it shall be hereafter proved that they do not leave the river for thirteen or fourteen months, it is evident that an immense destruction of them must take place during their continuance in the fresh-water; a circumstance of great importance to the fisheries.

Insects.—The following list of a few of the insects found in this parish, includes some not common throughout the county, and others which are hurtful to vegetation.

COLEOPTERA.		
<i>Coccinella septem-punctata</i> (1.)	<i>Vanessa Atalanta</i>	<i>Metopsilus Elpenor</i>
<i>Carabus catenulatus</i>	<i>Hipparchia Aegeria</i>	<i>Macroglossa stellatarum</i>
<i>hortensis</i>	<i>Megara</i>	<i>Cerura vinula</i>
<i>violaceus</i>	<i>Semele</i>	<i>Arctia caja</i>
<i>Anthonomus pomorum</i> , (2)	<i>hyperanthus</i>	<i>Calocampa exoleta</i>
<i>Chrysomela fastuosa</i>	<i>pamphilus</i>	<i>Thyatira batis</i>
<i>Meolontha vulgaris</i> , (3.)	<i>blandina</i>	<i>Rumia cratagata</i>
<i>Gyrinus natator</i>	<i>Lycena Phlaeas</i>	<i>Hydrocampa nymphæata</i>
	<i>alsus</i>	<i>Pterophorus pentadactylus</i>
	<i>Polyommatus Artaxerxes</i>	<i>Atraxas grossulariata</i> (5.)
	<i>Pamphila lineæ</i>	
LEPIDOPTERA.		
<i>Pontia brassicæ</i>	<i>sylvanus</i>	
<i>cardamines</i>	<i>Anthrocere loti</i>	
<i>Vanessa urticæ</i>	<i>Smerinthus populi</i>	
<i>polychloros</i>	<i>Acherontia Atropos</i> , (4.)	
<i>C. album</i>	<i>Sphinx ligustri</i>	
		HEMIPTERA.
		<i>Blatta orientalis</i> (6.)
		<i>Coccus Persicæ</i> (7.)
		<i>mali</i>
		<i>Aphides</i> var (8.)

(1.) The seven spotted lady-bird belongs to a large family, of which fifty are already known. All of them, both in the larva and perfect state, feed on the aphides, so mischievous in gardens, and do not injure vegetable substances. Their eggs are commonly found in groups, on leaves where aphides abound. The lady-bird has been often charged with being the cause of blight, when seen on the cankered spots of apple-trees; but it is in reality the best remedy against that disease.

(2.) The *Anthonomus pomorum*, (the *Curculio* p. of Linn.) is a weevil about a quarter of an inch long, the elytra dotted in rows, and of a dusky red. Bandages of tar applied round the stems of the trees prevent their ascent, for it is only in hot weather that they fly from tree to tree. They destroy the buds, and prevent the blossoms from unfolding.

(3.) The cock-chafer, so very destructive in pasture grounds, has been rarely seen here these several years. The larva, a whitish worm with six legs, a red head, and strong claws, lives in the earth four years, devouring the roots of the grass. Their increase may be prevented by employing children to take the insects in May and June, before they have laid their eggs; which may be done by shaking and beating the trees and hedges during the day. Where land is ploughed up in the spring, if the weather be warm, hundreds of the grubs are exposed, when rooks, gulls, jays, &c. will devour them. The almost constant employment of rooks for three months in the spring is to search for this sort of food.

(4.) The death's-head moth is generally found on its natural food, the potato-plant.

Superstition has been particularly active in suggesting causes of alarm from the insect world; and, where man should have seen only beauty and wisdom, he has often found terror and dismay. But all these vain imaginations are flitting away before the light of revelation, reason, and experience.

(5.) The caterpillars of the magpie or gooseberry-moth, which in some seasons commit extensive depredations on gooseberries and currants, may be killed by the smoke of live coal or peat, in a flower-pot or other vessel, placed under the bush, having an old cloth or carpet thrown over it. The smoke will ascend and be confined to the bush, from which the caterpillars will fall, apparently lifeless, in four or five minutes, but would recover if not collected with a hoe and destroyed. This plan should also be used in the earlier stages of the caterpillar;—and it will likewise kill *Aphides*.

(6.) This species of cockroach, sometimes erroneously called the black beetle, is supposed to have been originally imported from Asia, and is thoroughly domesticated in many houses here, particularly those near the harbour, to the great vexation of the inhabitants. These insects are among the most disagreeable annoyances to which the dwellings are subject; and, when their multiplication is permitted, the ravages they commit are very extensive. The *sapient* Sancho Panza declares that there is a remedy for every thing but death; and it is truly fortunate for mankind that the increase of this pestilential race may be repressed by aid of their own voracity. They may be poisoned by meal, and one-third of white or red lead, or with arsenic sublimated, &c. mixed with molasses: and they may be entrapped by putting some food for them in a deep glass or tumbler, and covering the outside of it with cap-paper. Crickets may also be caught by the same means.

(7.) Of the *Coccus*, or cochineal tribe, two are very destructive in gardens, the *C. Persica*, or peach coccus, and the *C. mali*, or apple-coccus, sometimes called the London bug, the history of which is at present involved in much obscurity. It throws out a large quantity of cotton-like matter.

The above applies only to the apple-coccus. If the peach-coccus cannot be eradicated, its numbers may be greatly reduced by brushing the twigs of the tree early in the spring with a hair brush. When they are very numerous, and on the points of the twigs, these are sometimes cut off and carried out of the garden. This causes the loss of the fruit in a great measure for that season; but the tree will be thrown into such health as to be in the finest order for the ensuing year. Should any females of this insect be found on the trees about the beginning of May next season, they should be carefully removed by means of a blunt knife having a very thin blade, and deposited in a vessel to be carried out of the garden. With every female which is taken at this period, about 3000 eggs are destroyed.

"Knowing," says the ingenious Mr Waterton, "that the bug could not exist, if totally deprived of air, I resolved to bury it alive; and this I effected by an application at once the most easy and simple that can be imagined. It costs nothing. I mixed clay with water, till it was of a consistency that it could be put on the injured parts of the tree, either with a mason's trowel or a painter's brush. I then applied it to the diseased parts of the tree, and it soon smothered every bug. A second coat upon the first filled up every crack which showed itself when the clay had become dry; and this resisted for a sufficient length of time the effects both of sun and rain."

(8.) The *Aphides*, or plant-lice, are very destructive to various growing crops; and yet their history is very little known. The very name is omitted in some of the most extensive catalogues of British insects. The bean dolphin, or collier, an insect of this genus, though named, is neither figured nor described. These facts are not very creditable to our literature. Their natural enemies are the *coccinellæ*, and the smaller soft-billed birds, (*Sylviada*), yellow wren, gold-crest, tit, &c. which gardeners and others often unjustly accuse of devouring the crop itself, when they are busy in search of plant-lice. These, and many other birds, do more good than harm in gardens, and the shots intended for their destruction do more harm than good, as any man of observation may see in the broken bushes and mutilated bark of trees on the one hand, and the *insectivorous* propensities of the birds on the other.

Botany.—This parish comprehends,

— "the boundless store

Of charms which Nature to her votary yields;
The warbling woodland, the resounding shore,
The pomp of groves, and garniture of fields;"

but its botanical treasures have been imperfectly explored. The

following list includes some of the more uncommon species, a few of which are probably not indigenous, but only "mark where a garden has been."

<i>Ligustrum vulgare</i>	<i>Hyacinthus non-scriptus</i>	<i>Malva sylvestris</i>
<i>Pinguicula vulgaris</i>	<i>flore albo</i>	<i>Fumaria parviflora</i>
<i>Anthoxanthum odoratum</i>	<i>Colchicum autumnale</i>	a var. resembling <i>F. formosa</i>
<i>Valeriana officinalis</i>	<i>Alisma Plantago</i>	
— <i>Pyrenaica</i>	<i>Calluna vulgaris</i>	<i>Hypericum Androsæmum</i>
— <i>rubra</i>	<i>Erica Tetralix</i>	— <i>calycinum</i>
<i>Eriophorum angustifolium</i>	— <i>cinerea</i>	<i>Carduus eriophorus</i>
<i>Arundo Phragmites</i>	<i>Vaccinium Myrtillus</i>	<i>Onopordum Acanthium</i>
— <i>arenaria</i> , Sm.	<i>Chrysosplenium alternifolium</i>	<i>Tanacetum vulgare</i>
<i>Knautia arvensis</i>		<i>Cichorium Intybus</i>
<i>Scabiosa succisa</i>	<i>Silene inflata</i>	<i>Senecio aquaticus</i>
— <i>columbaria</i>	<i>Stellaria nemorum</i>	<i>Anthemis nobilis</i>
<i>Asperula odorata</i>	— <i>holostea</i>	<i>Achillea Ptarmica</i>
<i>Pulmonaria officinalis</i>	<i>Arenaria serpyllifolia</i>	<i>Orchis mascula</i>
<i>Mycosotis palustris</i>	<i>Sedum Telephium</i>	— <i>morio</i>
<i>Anagallis arvensis</i>	— <i>acre</i>	— <i>latifolia</i>
<i>Lysimachia nemorum</i>	<i>Oxalis acetosella</i>	— <i>maculata</i>
— <i>thyrsiflora</i>	<i>Sempervivum tectorum</i>	<i>Polypodium vulgare</i>
<i>Primula vulgaris</i>	<i>Anemone nemorosa</i>	— <i>Phegopteris</i>
— <i>veris</i>	<i>Caltha palustris</i>	— <i>Dryopteris</i>
<i>Erythræa Centaurium</i>	<i>Euphrasia officinalis</i>	<i>Aspidium lobatum</i>
<i>Atropa belladonna</i>	<i>Ajuga reptans</i>	— <i>thelypteris</i>
<i>Solanum dulcamara</i>	<i>Bartsia Odontites</i>	— <i>oreopteris</i>
<i>Lonicera Periclymenum</i>	<i>Rhinanthus Crista-Galli</i>	— <i>Filix-mas</i>
<i>Hydrocotyle vulgaris</i>	<i>Linaria Cymbalaria</i>	— <i>spinulosum</i>
<i>Cicuta virosa</i>	<i>Scrophularia nodosa</i>	<i>Asplenium trichomanes</i>
<i>Apium graveolens</i>	<i>Digitalis purpurea</i>	— <i>Adiantum nigrum</i>
<i>Bunium flexuosum</i>	Do. var. <i>flore albo</i>	— <i>Filix-Fœmina</i>
<i>Myrrhis odorata</i>	<i>Cardamine amara</i>	<i>Scolopendrium vulgare</i>
<i>Conium maculatum</i>	— <i>hirsuta</i>	<i>Pteris aquilina</i>
<i>Statice armeria</i>	<i>Geranium pratense</i>	<i>Blechnum Boreale</i>
<i>Drosera rotundifolia</i>	— <i>sylvaticum</i>	<i>Ophioglossum vulgatum.</i>
<i>Berberis vulgaris</i>	— <i>sanguineum</i>	
<i>Allium ursinum</i>	<i>Lavatera arborea</i>	

The various species of wild roses flourish here in their season, with a luxuriance and beauty that may be said almost to rival the plains of Persia, and the valleys of Judea. This honour may be thought to belong rather to the rich garden rose, with all its varieties, than to the humble hedge-rose, which so frequently "wastes its sweetness on the desert air;" but yet it is rarely beheld without awakening those less exciting, though not less delightful emotions which spring from objects of beauty, and lead to the devotion of gratitude, "from Nature up to Nature's God."

"Ah! who can look on Nature's face,
And feel unholy passions move!"

Woods.—In this, and in most of the lower districts of Scotland, few remains of her ancient sylvan vegetation present themselves, and these are confined chiefly to ravines and narrow glens, where they are generally intermingled with planted trees. At the south-eastern extremity of this parish, in the grounds of the Earl of Mar

and Kellie, there was part of a natural wood when the last Statistical Account was written, a very small portion of which now remains. We are informed by Mr Tytler, that, in ancient times, so long ago as the reign of David II., this district of Clackmannanshire, contained royal forests, in which, by a grant from the King, the monks of Holyrood had the right of cutting wood for building and other purposes, and of *pasture for their swine*.^{*} We may well suppose, however, that no two pictures could be more dissimilar than Scotland in the thirteenth and fourteenth, and Scotland in the nineteenth century; for the present sylvan vegetation can have little or no resemblance to the old; as trees from the continent of Europe, from Asia, and from America, now supply the place of those which once indigenously occupied the soil.

The gardens and grounds at Alloa were the first that were laid out on a great scale in Scotland; and, with the advice of Le Naui-tre, they were indebted to the taste of John, the late Earl of Mar, who began to plant them in the year 1706. They would have exhibited to the fastidious Dr Johnson, had he travelled this way, as fine timber of fourscore years growth as his favourite England can produce. Alloa park, which includes all the older plantations, is very much enlarged, containing now no less than 480 imperial acres, one-half of which has been planted; and, in several of its more elevated parts, the present noble proprietor has introduced a variety of fine trees, in clumps and otherwise, very tastefully arranged. The beauty of park scenery is here well displayed in a finely diversified surface, where hanging lawns, screened with wood, are connected with valleys. This extensive and beautiful park, thus rich in the beauties of liberal nature, is not less rich in historic associations; for here much that is memorable in Scottish history has a "local habitation." The great variety of trees, both indigenous and exotic, makes a fine contrast in every season of the year; of these the following are some of the more remarkable:

Quercus Robur
Ilex

Quercus coccinea
sessiflora

Quercus Cerris
Eculus

^{*} A foreign traveller, *Hartmann Schedel*, (in "*Historia Artatum Mundi*," Nuremberg, 1493,) gives a description of Scotland in the reign of James II. "The following miracle," he says, "was presented to us. We saw poor people almost naked coming to church and begging; upon which they received *stones*, for which they expressed thanks, and showed the greatest joy. This kind of stone, being composed of sulphur or other fat matter, is burned instead of wood, of which the country is destitute." This, perhaps, *veracious* traveller does not say what part of Scotland he traversed; but it is evident that he had arrived at a place where the old forests were all exterminated; where modern planting had not commenced, and where coal was just beginning to be wrought.

<i>Quercus heterophylla</i>	<i>Viburnum Lantana</i>	<i>Crataegus Crus galli</i>
<i>Pinus cedrus</i> <i>strobis</i> <i>balsamea</i> <i>Canadensis</i> <i>horizontalis</i> <i>Pinaster</i>	<i>Sorbus aucuparia</i> <i>Pyrus prunifolia</i> <i>Liriodendron Tulipifera</i> <i>Juglans regia</i> * <i>nigra</i> <i>alba</i>	<i>Fagus sylvatica</i> <i>Acer Pseudo-Platanus</i> <i>Populus ascladenea</i> <i>alba</i> <i>monilifera</i> <i>fastigiata</i>
<i>Taxus baccata</i> <i>b. stricta</i>	<i>Castanea vesca</i> <i>Esculus hippocastanum</i>	<i>Prunus cerasus</i> <i>Cerasus avium</i>
<i>Cupressus sempervirens</i> <i>a. stricta</i>	<i>Corylus Avellana</i> <i>Colurna</i>	<i>Ulmus rubra pendula</i> <i>Fraxinus excelsior, pendula</i>
<i>Thuja orientalis</i> <i>occidentalis</i>	<i>Crataegus oxycantha</i> (var. <i>floribus rubris</i> .)	<i>Tilia Europea</i> <i>Salix alba</i>
<i>Robinia Pseudacacia</i>		

Tullibody woods are also extensive, and comprise a track of woodland of fine sylvan beauty. The more elevated parts are, in general, covered with Scotch fir (*Pinus sylvestris*) and other pines or soft wood, as they are called, chiefly as a shelter to forest trees in the younger plantations; but occasionally standing by themselves, and being of stately size, they add to the height of the rising grounds, and to the picturesque appearance of the landscape. In the more fertile lower grounds, the usual forest trees, oak, ash, beech, horse-chestnut, planes, poplars, &c. are in a very thriving condition; and these, with all the other trees, appear to have been planted. The most generally prevailing tree appears to be the oak, (*Quercus Robur*,) several of which are of great size.

Only that portion of Shaw Park wood which surrounds the mansion-house is in this parish,—and it consists chiefly of beech. There are a few other thriving trees, oak, elm, lime, chestnut, &c. and some varieties of the pine, including fine healthy specimens of the cedar of Lebanon, but not remarkable for size. It is surprising that this tree is so little cultivated throughout the country. It grows as fast to a large tree as the oak, stands as long or longer, is green all the year round, and, therefore, a shelter to the land, at the same time that it is the most ornamental of all large-growing trees.†

In Alloa woods, a few of the trees have been measured, (the

* The fruit ripens here most seasons.

† The Deodar, or Indian cedar, (*Cedrus Deodara*.) introduced to Britain in 1822, seems, in respect of its timber, possessed of all the properties ever ascribed to the cedar of Lebanon, compared with which the tree seems also equally, if not more hardy and suitable for the climate of Britain,—and it has also the advantage of growing more rapidly when young; so that it may yet become one of the most valuable of the *Coniferae*, whether as a timber or an ornamental tree. It is a native of the Himalaya mountains, where trees 150 feet high, without branches, and 30 feet in circumference, are not uncommon; some are even larger. If the Deodara be grafted on the cedar of Lebanon, it will make a tree much sooner than upon its own bottom. Many fine plants are spoiled by being grafted on larches, merely because cedars of Lebanon are expensive stocks.

girth being taken at one foot from the ground,) as under : Horse-chestnut, girth, 19 feet, extent of branches 70 feet ; another horse-chestnut, girth, 13 feet, extent of branches, 66 feet ; beech, girth, 18 feet ; another beech, girth, 14 feet 6 inches. Of the latter, the height to the branches is 20 feet. Oak, (*Quercus Robur*,) girth, 15 feet, extent of branches, 68 feet. This very beautiful tree stands singly in the park. Greater maple or sycamore, girth 12 feet 6 inches ; yew, (*Taxus baccata*,) girth, 7 feet 6 inches ; at beginning of branches, (3 feet from the ground,) girth, 11 feet.

These dimensions give an average girth of 9 feet 3 inches, and a diameter of 3 feet 1 inch, or 37 inches, which, by De Candolle's method, being multiplied by 12, gives 444 years as the age of the tree. This is on the supposition that each annual ring is equal to one line in breadth. If for aged trees we take the average of one line annually, we make them younger than they really are. There are several more yew trees here of apparently the same age.

A fine ash (*Fraxinus excelsior*) in the park, long named the "giant's staff," is more remarkable for beauty than for size, being free from branches to a great height, and as straight as a ship's mast. A similar tree is thus alluded to by Homer,

" From Pelion's cloudy top, an ash entire
Old Chiron felled, and shaped it for his sire ;
A spear which stern Achilles only wields,
The death of heroes and the dread of fields."

The largest tree in the parish is an oak near Tullibody House,* measuring in girth 20 feet ; extent of branches, 98 feet ; others do. measuring in girth, 14 feet ; an ash measuring 15 feet ; and several sycamores, 14 feet.

Geology and Mineralogy.†—The whole of this parish is composed of rocks, without exception, belonging to the independent coal formation, upon which rests a thick cover, both of old and recent alluvial clay. The surface is undulated, forming hill and dale, all of it in an arable state. The recent alluvial cover is evidently formed by deposits from the river Forth, and its tributary streams, washing down the old alluvial clay, and extends along the north side of the river, until it joins the old alluvial cover northward ; the line of junction being quite distinct. This line is about twenty-

* In the year 1745, when the rebel army, consisting of 4000 men, had got possession of the town, though not of the Castle of Stirling, the Rev. Ebenezer Erskine, one of the fathers of the Secession, found it expedient to retire for a season, and preached to his people in the wood of Tullibody.

† For this valuable contribution the writer is indebted to Robert Bald, Esq. F.R.S.E., F.G.S., M.W.S., &c. Mining-Engineer.

five feet higher than the surface of the river, at the highest spring-tides; hence it is evident, that the tides, when washing along the margin of the old alluvial cover, flowed at least twenty-five feet higher than they do at present. It is supposed by geologists, that the formation of the recent alluvial cover by the river along both its banks, has been the cause of the excluding of the tides, and lowering them so much in their height; but this must have taken place at a remote period, as it is evident that the height of the tides is very little altered since the Romans were in Scotland, as may be seen from the artificial fords in the river, and the site of the roads and military works of those people.

The old alluvial cover consists of clay, sand, gravel, and boulders, intimately mixed, so as to render it impervious to water, and is the most sterile of all compounds; it is of various thickness, from a few feet to many fathoms. In the rising ground, immediately north from the town of Alloa, a shaft or pit was sunk through no less than fifty-four yards of this clay, ere the rock was found. The lower part of this alluvium, of about a foot thick, was composed of very fine clay in laminæ not thicker than a common wafer, and of great flexibility and toughness; from which it is inferred that this fine clay had been deposited in still water, previous to the thick heterogeneous mixture being superimposed. It is also to be remarked, that, wherever this kind of cover forms rising grounds in this and the adjoining parishes, the steep brow of these hills faces the west, and from this height gradually slopes to the east, these hills and valleys being in a west and east direction.

This cover, as before noticed, is remarkable for its sterility, the cause of which appears to be that no vestige of animal or vegetable remains has ever been found in it, though it has been frequently sunk through both in the opening of mines and quarries. But this cover rests on rocks of the coal formation, which contain immense quantities of organic remains, both of the animal and vegetable kingdoms. From these undeniable facts, it is concluded that the old alluvial cover is not the deposit of the deluge, for had it been so, both animal and vegetable substances would have been found in it; and the conclusion is formed that this cover had been deposited previous to the deluge, and it is supposed that the subsiding waters of that flood, in some degree, influenced the form of the valleys, and the steep brow of this cover facing the west.

The boulder stones found in this cover, consist chiefly of those belonging to the trap and transition rocks; and along the surface,

particularly near the line of junction with the recent alluvial deposit of the River Forth, are found large masses of greenstone rock, which must have been brought by the waters, from the great rocks of greenstone, which abound in the vicinity of Stirling, upon the west, as no beds or dikes of this rock have been found in this parish.

The recent alluvial cover deposited by the River Forth consists entirely of soft blue mud or silt in the lower part, and strong tenacious clay at the surface, suitable for brick-making. No stones of any kind are found in it, the deposit having been made from still-water; but it rests sometimes on clay of the old alluvial cover, and at the surface of this clay boulders of greenstone are found.

This recent alluvial deposit of the river Forth is of various thickness, from a few inches at the line of junction with the old alluvial cover, to thirty yards. This depth was bored through, ere the rock was reached at Longcarse farm-steading, west from the harbour of Alloa.

At the Rhind point, south from Longcarse farm-steading, there is a ford known by the name of the Throsk Ford, which is the most southerly part of this parish. The whole bed of the river, as far as low water-mark, is laid over with an immense quantity of boulders, chiefly of greenstone. This ford is four feet higher than the pitch of low-water, or the lowest ebb at Alloa harbour, and there is deep water beyond this ford to the westward. Hence it is concluded, that this ford or collection of stones in the river is altogether artificial, having been made by the Romans as a pass, similar to the other fords up the river towards Stirling.

In some places, there are found quantities of a brown ferruginous sand, overlaying the old alluvial cover, and in the narrow valleys, there are deposits of brown tenacious clay, with small stones disseminated through it. These deposits appear to have been formed by the deluge.

The rocks in this parish being entirely of the coal formation, consist only of a very few varieties, viz. 1st, Sandstone of various colours, but chiefly light red, yellowish, and grey, inclining to white. 2^d, Sandstone combined with coal slate, in the form of clay, and in very various proportions. 3^d, Coal slate containing bands and balls of common clay ironstone. 4th, Coal slates of a dark colour found generally with a bed of coal resting upon them. 5th, Beds of coal from one inch to nine feet thick. 6th, Limestone.

The general dip of the rocks is to the north-east, and the declination from the horizon is, on an average, one foot perpendicular in six feet horizontal.

This coal-field is intersected by many dislocations or slips, both in an east and west, and in a south and north direction. Two of these; which are in an east and west direction, are very remarkable.

The one farthest north passes through the rising ground north from the farm-steading of Parkhead, and has the effect of throwing down the coals and their accompanying strata, more than 100 fathoms. The coal-field to the north of this slip in the parish is known by the name of Coalyland; the coal-field upon the south of this slip is known by the name of Carsebridge. Both these coal-fields contain the same beds of coal.

In the Carsebridge coal-field, all the coals having cropped out, as it is termed in the miner's language, or having come to the surface of the rocks in a south direction, and in contact with the alluvial cover, it is found that, on the south side of the parish, near to the parish of Clackmannan, an immense slip takes place, and has the effect of throwing down the coals and accompanying strata fully 200 fathoms, and forms the south coal-field of this parish, with coals and strata the same as those before-mentioned.

This is understood to be the greatest slip of the strata hitherto ascertained in the coal-fields of Scotland; and it is remarkable, in a geological point of view, that the surface gives no indication whatever of such a dislocation or slip, either here or at the other great slip before-mentioned, and that these slips are somewhat parallel with the south front of the Ochil mountains, which form part of the north boundary line of the coal-formation of Scotland.

These coal-fields being intersected by the great slips before-mentioned, each coal-field is, as to its coals and accompanying strata, basin-shaped, or rather, the portion of a basin, and somewhat of a fan shape; at least, such is the south coal-field next Clackmannan parish, and the middle coal-field of Carsebridge. But the Coalyland coal-field is part of a long elliptic basin, the coals and their accompanying strata dipping northwards to the River Devon, and then rising very abruptly along the face of the Ochil mountains. The east end of this trough is about a mile east from the town of Dollar; the west end of it, where coals are found, is at the north-west part of the parish, crossing the River Devon towards the Ochil mountains.

At the north-east part of the parish, in the farm of Jellyholm, near to Gartmorn dam, is a great diagonal slip, which runs from the north-east to the south-west. The extent to which it dislocates the strata, is unknown, but it throws the coals and the accompanying strata down to the east, and gives formation to an extensive coal-field, stretching chiefly into the parish of Clackmannan. The coals are the same as those before described; and, besides these great slips or dislocations of the strata, there are many other slips of less magnitude in the coal-fields.

The Ochil mountains are composed of trap and porphyry rocks. This fact, combined with the circumstance before-mentioned, has given rise to many discordant theories. It may, however, be inferred, that these trap rocks underlie the whole of these coal-fields.

Quality of the Rocks and Economical Uses.—The first class of sandstone is applied to the ordinary purposes of building, but they are generally porous and liable to imbibe water, both by capillary attraction from wet foundations, and from rain. The red-coloured variety has been frequently mistaken for the old red sandstone, but it is altogether different from both it and the new red sandstone. This red sandstone belongs decidedly to the alternating strata of the coal-formation, and is of a light-red or bluish colour.

The bands and balls of ironstone found in the strata of coal slate are of the same kind of clay ironstone commonly found accompanying coal in Scotland, which yields from 30 to 35 per cent. of pig-iron, and has been long wrought in this parish for the iron furnaces.

The fourth class of rocks before-mentioned, viz. argillaceous rock or fire clay, is of a dark colour, and when wrought, turns out in irregular lumps, very different from the coal slate. The latter, when exposed to fire, becomes of a brick-red colour, and melts easily into a black glass or slag. The former comes out of the fire of a yellowish-white colour, and is found to be very refractory, and is consequently much used for making fire-bricks for the lining of furnaces, where an intense heat is required.

The coals are very abundant, and are from a few inches to nine feet in thickness. They are all of an open burning quality, and composed both of splint and cubical coal. They in general hold very little sulphur in combination, but it is found in the form of pyrites, which can be separated from the coal and thrown aside. These pyrites have not been found so abundant as to be of any use. None of them are suitable for smiths' forges, where a very

strong heat is required, being only suitable for ordinary light work, so that smithy coals for heavy work have to be imported from a distance. The only cannel or parrot-coal found in the parish is about four inches thick, and is of so little value, that all the cannel coals for the Alloa gas-works are brought by sea-carriage from a considerable distance.

No workable coal has been found farther west than this parish, upon the north side of the Forth ; nor even farther west than the estate of Mar. Many attempts have been made by boring in Lord Abercromby's estate of Tullibody to find coal, without success. From these borings and the quarries in the vicinity, there appears to be a very thick body of whitish sandstone underlying the workable coals of this parish.

The only appearance of limestone in the parish is found at the western boundary in the river Devon, near the village of Cambus. Its situation prevents it from being wrought, and very little is known of its quality or thickness. There is, however, every reason to conclude, that, in the lower series of rocks connected with this coal-field, there is a bed of mountain or carboniferous limestone, and that this rock lies under all the workable beds of coal, as is generally the case in Scotland, England, and Wales ; and it is inferred that this is the mountain-limestone.

Organic Remains.—In the old alluvial cover which chiefly overlies the rocks of this parish, no organic remains of any kind have been found. In the recent alluvial cover of the rocks formed by the river Forth, they are found in the lower part of it, not only very many large common oyster shells, but also the greater part of those species of shells which are found in the sea near Leith, including the shells of crabs, and also the bones and horns of deer.

In the coal formation, there are immense quantities of impressions of the vegetable kingdom, and of oysters, which naturalists consider as belonging to the fresh-water class. These organic remains are found chiefly in the coal slate, and in the bands and balls of ironstone. In the sandstone the petrifications are comparatively rare, but they are in general found of a larger size than in the other strata, and chiefly of the vegetable kingdom.

The chief organic remains in this coal-field are of the following classes :

Animal.—Unio, a fresh water bivalve, also Mytilus, and other molluscs. Of fishes, remains of the genera Gyraacanthus, Megalichthys, (the species Hibberti) ; also teeth, scales, and spines of other fishes. Coprolites found in nodules of iron clay stone.

Vegetable.—Species of the genera Calamites, Stigmaria, Lepidodendron, Pecopteris, Equisetum, Favullaria, (tessellata,) &c.

Of these there are many varieties; and along the roof of the coals are impressions of gigantic palm trees, which the miners here term plough furrows.

Collieries.—The coals of this parish have been wrought for a long period of years, but at what time they commenced is quite uncertain. It would appear, however, from some very old papers, in possession of the family of Mar, that coals were wrought previous to the year 1650, by day-levels.

As the collieries were opened both for home sale and exportation, they have been wrought extensively, and the workable coals in this parish have been distinctly ascertained.

The stratification has been satisfactorily proved to the depth of 140 fathoms, extending beyond the lowest workable seam of coal in the field. This lower coal is known by the name of the lower Coalsnaughton main coal, and throughout all the Clackmannanshire coal-field no workable coal has been found under it. The number of seams of coal found in the depth of 115 fathoms, is 21, the aggregate thickness of which is fully 60 feet. At the present time, no coal here is reckoned workable to profit below 2½ feet thick. If all the coals below that thickness are deducted, there remain nine workable coals, the thinnest of which is 2 feet 8 inches thick, and from that to 9 feet.

It is proper here to remark, that a coal being workable or not workable, according to its thickness, depends much upon the district in which coals are found, no coal, however thin, being physically unworkable. If coals are very high in price, and no thick seams are to be found in the district, coals of 1 foot 6 inches are wrought; but when coals are thick and very moderate in price, coals under 2 feet 6 inches are estimated as not workable to profit, unless they are of the rich caking quality, suitable for smith's forges, bringing a comparatively high price. Of the thin coals in this parish some of them are only an inch or two thick.

There are three coal-fields in this parish composed of the same strata, and seams of coal, and are divided from each other by the great north slip before-mentioned. The coal-field on the north side of the slip is named the Coalyland coal-field, that on the south side of the slip is named the Carsebridge coal-field. In both of these, collieries upon an extensive scale have been wrought. The first operations were by day-levels upon a very limited scale.

There are yet traces of a day level running in a north and south direction near the Carsebridge distillery.

The application of the steam-engine for the drainage of mines being comparatively of a recent date, viz. about the year 1715, previous to this date, when day-levels could not be obtained, horse machinery, with chains and buckets, were applied to a depth not exceeding 15 fathoms. This machine was known in Scotland by the name of the Cogg and Run Machine, that is, a wheel with teeth working into a trundle or lanthorn pinion, such as was used in the old corn-mills. Such machines being very soon overpowered with water, the next resource was hydraulic machinery, for which large collections of water were made in the coal districts of Scotland. Pumps with valves were then unknown in Scotland, and the hydraulic machine, as then applied in this parish, was a water-wheel, with the axle across the pit-mouth; over this were several tires of endless pudding-link iron chains, and when the water was scarce, then comparatively few buckets were attached to the chains. In this manner, water was raised at a pit in the Carsebridge colliery, which was 40 fathoms deep to the 9 feet coal, and the drainage was carried on effectually for about fifty years.

For ensuring a supply of water for this water-engine, Gartmorn dam was formed. It is situated upon the east side of the parish, and its surface, when full, measures above 160 acres.

It is particularly to be noticed, in a statistical point of view, that, about the year 1700, John, Earl of Mar, who was so remarkable for the improvement of the arts and sciences in Scotland, and who wished to have the best advice as to the forming of Gartmorn dam, the sinking of the before-mentioned engine pit of 40 fathoms deep, and the application of the machinery, could then find no person of sufficient skill in Scotland to make a survey and report thereon. His Lordship, therefore, that he might have the most eminent person of that day, brought Mr Sorocold, a mining engineer, from Wales, at a great expense. He tried the levels for bringing in a supply of water from the river Black Devon, in the parish of Clackmannan, to Gartmorn dam, and the aqueduct was executed according to his directions. The levels were not taken by a spirit level, as is the present practice, but by a large wooden quadrant, set upon a tripod with brass lights, along the upper radius, the index being a plummet suspended by a fine thread. This instrument was of no use in a strong wind, but when the wind was moderate, the undue oscillation of the plummet was brought

to rest by immersing it in water. For this purpose an attendant was at all times required to carry a wooden cup with water, and apply it to the plummet, at every observation.

In Mr Sorocold's report on the sinking of the before-mentioned engine pit, he recommended the application of large pumps with valves, in place of the chains and buckets,—the former being greatly superior to the latter in every point of view. But when the recommendation came to be acted upon, the Earl's secretary states, in a document still in preservation, that, as there was no person in Scotland who could construct such pumps as were required, he requested to know from the Earl, "whether he would apply for advice to John Young, who had been sent by the town of Montrose to Holland to see the windmills there, or to the mechanical priest in Lancashire."

The pit was sunk, and the main or nine feet coal laid dry, not with pumps, but by the old system of chains and buckets. It is said, that, at this time, gunpowder was not in practice for blowing up rocks in sinking, and this pit was sunk by aid of what is termed plug and feathers. This method is to bore a hole in the rock about three feet deep, then to insert in each side of the hole a feather of iron longer than the hole is in depth, These feathers of iron are circular on the one side, and plain on the other. Betwixt these a long tapering wedge is placed, and driven with the full force of sledge hammers, until part of the rock was burst asunder. In this most laborious manner, the sinking was conducted in the midst of a deluge of water, occasioned by the imperfect mode of drawing the water up the pit; and it is a matter of remark, when descending these old shafts where this method of sinking was used, that, wherever very hard beds of stones are passed through, the pit is considerably narrower at these beds, but it is at the regular width in the ordinary strata. This arose from the very great expense of this mode of sinking; and it is thus seen how much the sinking of pits has been improved and facilitated since the introduction of gunpowder in blasting rocks.

This winning being exhausted, the next operation was the winning of the same nine feet coal on the north side of the great north slip at Coalyland, near the river Devon. This was begun in the year 1764, and was won by a steam-engine, according to Newcomen's plan, with Beighton's arrangements, having the boiler immediately under and almost close to the cylinder. This pit gained the nine feet coal at the depth of 48 fathoms. The cylinder was

40 inches in diameter, the pumps 10 inches diameter. All these pumps were of plane-tree, bored out of the solid wood, hooped with iron, having spigget and faucet joints. The only pipes in the two columns made of cast-iron were the working barrels. About thirty-five years ago, the mines of this colliery took fire, but from what cause is unknown; nor could the fire be extinguished until a stream of water was poured down the engine-pit, and the colliery was abandoned. There yet remains an extensive field of coal to work, consisting of several seams. The mining operations in one of the coals has been commenced on an extensive scale, by means of mines brought from the pit bottom of the New Sauchy pumping engine, situated in Clackmannan parish,—the property of the Earl of Mansfield.

The present colliery of Carsebridge, on the south side of the great north slip, is about 50 fathoms deep to the upper five feet coal. This winning was made about the year 1760. It is drained by a hydraulic engine of considerable power. The water-wheel is 30 feet diameter overshot, and 3 feet wide in the buckets, with a 3 feet crank on each side of the axle, and draws the water to the surface by means of pumps 10 inches diameter. This method of draining a colliery is nearly as economical as that of a day level. The water for drawing the water-wheel is brought from Gartmorn Dam.

The limited coal-field on the south side of the great south slip was nearly wrought out about a century ago. This slip cut off the workings to the north, and many trial bores were put down to the north of the workings in search of the nine feet coal which had been lost; but all these trials were fruitless. At that time, the effect of these slips was unknown; and the fact is, that the coal which was lost was thrown up 200 fathoms, and the consequence is, that the crop of it is not found for about three-quarters of a mile, and that immediately to the north of the Carsebridge hydraulic pumping-engine. The effect of these slips is only a recent discovery, as well as the true constitution of the coal-fields.

All the coals in this parish were wrought in the common way, by post and stall as it is termed, or in pillars and rooms, till within these thirty years, when the Shropshire method was introduced, and no pillars left. It was begun in the Carsebridge colliery, in a coal about three feet thick, and is carried on successfully at present. In the Colyland colliery, the post and stall system is now pursued, the coal being too thick for working in the Shropshire

system with economy. By this last system, from an eighth to a ninth of the coal is lost; by the other system, the coal left in pillars is from a fourth to a third of the whole.

Inflammable air, the carburetted hydrogen of the chemists, was never found in these mines, which is no common blessing to the miners. Fixed air or carbonic acid gas, however, is abundant, and has been the cause of loss of life. The miners name it styth, black-damp, choke-damp, and also the pease-bloom damp, conceiving that it is generated by the blossoms of the field pease and beans, or by the flowers of the wild mustard, which they name skelloch. The cause of this supposition is, that, during the heat of summer, when these plants are blooming, the air in the mines is commonly very bad, whereas the sultry air is the cause.

Until within these thirty years, all the coals in this parish were brought from the wall face or foreheads of the mines by women, married and unmarried, old and young; these were known by the name of bearers. When the pit was deep, they brought the coals to the pit-bottom; but when the pits did not exceed 18 fathoms, they carried the coals to the bank at the pit-head by a stair. A stout woman carried in general from 100 to 200 weight, and, in a trial of strength, 300 weight imperial.

Of all the slavery under heaven's canopy (the African slavery as it was in the West Indies excepted), this was the most cruel and oppressive, both as regards body and mind, and wherever this system exists, the condition of the collier and his family is most lamentable,—it is a bar to any improvement or comfort whatever. As the collieries in this parish extended, this oppressive slavery became evidently worse, and the late most worthy and excellent John Francis Earl of Mar, with a benevolence and philanthropy which does honour to his memory, ordered this system to be completely abolished. The evils attending this system, may, in some degree, be estimated, when it is stated, that, when his Lordship put an end to it, 50,000 tons of coals were raised at his collieries annually, every ounce of which was carried by women. Iron railways and trammers, with four-wheeled carriages, are now substituted, to the great comfort of the miner, his family, and all concerned with the collieries.

The rotatory steam-engine is used for drawing the coals up the pits, and this can be accomplished with any velocity required.

The coals are carried from the pits to the harbour of Alloa, by

means of a railway, and the progressive improvements in this mode of conveyance have been passed through here.

1st, The first railroad here was laid in the year 1766. This was composed of Scotch fir-rails of a scantling 4 inches by 5 inches, fixed by wooden pins to cross pieces of wood near to each other, termed sleepers.

2d, The above was improved upon and strengthened by laying a top rail above the other, of the same kind of wood; but the fir-wood chaffed and wore so fast with the iron-wheels, that this had to be improved.

3d, The next improvement was to make the top rail beech-wood. This became smooth and glossy, and continued to be the improved railway until the introduction of cast-iron.

4th, The next attempt at improvement was the adopting of cast-iron, by plating the wooden rails with cast-iron in pieces of four feet long, of an inch and a quarter square; each piece of rail having three projecting ears with holes, through which a pin was driven to fix the iron-rail in its place. This plan proved quite abortive, for the instant the wood gave way or yielded, the cast-iron was broken, and it was found so useless and so expensive that it was thrown aside altogether. The engineers then never once contemplated the substitution of cast-iron rails of a proper form, in lieu of the wooden-rails.

5th, The next improvement adopted was the double wooden rails before-mentioned, being formed of best Memel or Prussian fir, plated with Swedish malleable iron, $1\frac{1}{4}$ inches broad and $\frac{3}{4}$ of an inch thick. This railroad kept long in a good state, but when the wooden rails began to fail, the repairs were never ending and expensive.

6th, The preceding improved road was superseded, about thirty years ago, by an edge railroad composed of cast-iron rails and sleepers of the same, which plan had become common in England, and had been adopted at several collieries in Scotland. This was a decided improvement upon all the former plans in every point of view.

7th, The cast-iron railway being worn out after thirty years service, the next and last improvement made in this railway was the substituting edge rails of malleable iron, known by the name of Bedlington patent rail. These are laid on stone blocks and fixed thereto by cast-iron chains, as is the universal practice in every district in Great Britain.

The improvement as to the execution of work done upon these several kinds of railroads is as follows,—

Previous to the introduction of the first railroad in this parish, a horse brought from the coal-hills to the town or harbour one cart of coals weighing six cwt.

By the first railway a horse brought down a chalders waggon, containing 30 cwt., that is five times more than formerly.

The second, third, and fourth improvements gave a more substantial and lasting road, but no better execution of work than by the first plan.

By the fifth improvement a man and a horse brought down at a time three waggons of coals, or 90 cwt., which was thrice the quantity performed by a man and a horse upon the former plans of railroads.

By the sixth improvement, waggons containing only one ton or 20 cwt. were adopted, and one man and one horse brought down eight tons at a time or 160 cwt., which was nearly double of the former improvement.

The seventh improvement produces no more effect or execution than the former at present; but this fact is undoubted, that, if necessary, ten tons will be as easily drawn along the malleable iron railway as eight tons along the wavy surface of the last iron railway. If, therefore, the improvement in railways is viewed, and compared with the work of a horse in a cart before the railroads in this parish were made, a man and a horse actually do the work of what would have required 27 men and 27 horses formerly. The hire of a man and horse for drawing coals along the present railway from the coal-hills to the Alloa harbour, a distance of two miles and a half, is 3½d. each ton, the waggons being furnished and upheld to him.

As to the output of coals in this parish annually, it has been greatly reduced, although as a coal-shipping port the annual quantity is increased. This arose from the circumstance, that John Francis Earl of Mar, in the year 1806, took in lease New Sauchy colliery, in the parish of Clackmannan, which he wrought very extensively by colliers and their families taken from Alloa parish to reside in the parish of Clackmannan. Previous to this arrangement, the quantity of coal raised, annually, in the parish, may be taken at from 44,000 to 50,000 tons. At present the annual quantity raised is about from 76,000 to 80,000 tons.

Wages.—The price paid the collier for working the coal, and

filling the same at the wall-face into the corve, is, on an average, 1s. 8d. per ton of 20 cwt., and a good workman can earn from 16s. to L. 1, 4s. per week. Smiths' wages at the colliery are 16s. and wrights' 17s. per week. Sinkers and miners have about 2s. 6d. per day, and ordinary labourers from 9s. to 12s. per week. The colliers have their houses and their fire coals free, but they work the coals.

In considering the rate of a collier's wages, compared with other labourers for a century back to the present time, it is concluded that a collier ought to earn double the amount of an ordinary effective labourer or spademan, because to be an expert miner requires much practice. They are exposed to many casualties, arising from the roofs falling and noxious vapours. Besides which, they have their lights and tools to uphold.

With regard to the selling prices of coals in this parish, those have varied much within a comparatively short period. During the latter part of the last war with France, the prices were as follow per ton of 20 cwt.,—great coal on the hills, 6s. 8d.; chews, 5s. 4d.; great coal put on board at the harbour, 10s.: chew coal, do. do. 7s. 6d.

From the end of the war to Martinmas 1835, they declined very much, and no coal was sold on the Alloa hills, as all land sales were made at the Alloa coal-fold and at the New Sauchy colliery, in the parish of Clackmannan.

The sea sale prices previous to Martinmas 1835 were as follow,—great coal put on board, per ton, 6s. 6d.; chew coal, do. do. 4s. 6d.

These prices are as low as they were here, a century ago, notwithstanding the decrease of the value of money, and a more than double rate of wages.

This is chiefly owing to the application of the steam-engine for drawing water from the mines and the coals up the pit.

The prices of coals here at present, anno 1837, are as follows: great coal on the hills, per ton, 8s. 9d.; chew coal, do. 7s. 2d.; great coal put on board at the harbour, per ton, 10s.; chew coal, do. 8s. As these coals do not cake, the culm or dross, named here lime-coal or pan-wood, is of little value. A small quantity is raised, being generally thrown aside into the wastes as rubbish, to the extent of many thousand tons. The present prices are, per ton, lime coal on the hill, 1s. 8d. per ton; lime coal on board at the harbour, 4s. per ton.

As to the condition of the colliers, a very decided and evident improvement has taken place since the women were relieved from the most disgraceful slavery of bearing the coals, and the workman from all charge of the coals, the instant they are weighed at the pit. From the circumstance of the wives remaining at home to attend to the domestic economy, the houses are much more comfortable and better furnished than they formerly were, and the whole style of living has been improved.

There are three particulars worthy of notice, in connection with the colliers, viz. the pension or allowance to superannuated workmen; the Bailie Court or Court of Equity; the Friendly Society or Colliery Fund, as it is commonly named.

Formerly all colliers and salters who made salt from sea-water in Scotland, were attached to the property where they were born, that is, they were serfs or slaves, and were, with their wives and children, sold with the estate, from which they could not be removed. This slavery existed until the year 1775, when it was abolished by Act of Parliament. Before its abolition, the very name of collier was a reproach. But since that event, the colliers have risen in the scale of society, and now form a very respectable class.

While in the state of slavery, their masters had to support them, when superannuated. Although the obligation to give this support terminated, so soon as they were emancipated, the family of Mar continued the allowances to the colliers at Alloa, which amounted to from L. 200 to L. 500 a year, according to the prices of oatmeal.

After the colliers obtained their freedom, they fell into a habit of going from one colliery to another. To obviate the inconvenience thus occasioned, their employers engaged them and their children for a period extending from 7 to 14 years. This system, however, did not work well, for the idea of being engaged for so long a term of years, hung so heavy upon their minds, that they were constantly running off; and this was followed by warrants to apprehend and imprison them. This system at last came to such a height, that all engagements whatever were put an end to by the late John Francis Earl of Mar; since which time, they have settled quietly at their work.

The colliery having been let by the present Earl of Mar to a Company, his Lordship declined to support the poor on the lists. In this emergency, the Alloa Colliery Company agreed to pay one-third of the charity in money, another third being paid

from the parish funds, and the remaining third by his Lordship. Such a change as this had been contemplated many years ago, while John Francis Earl of Mar was alive, who suggested to the workmen, to make an additional weekly instalment to the then existing fund. To this they agreed: the society is now beginning to operate, and in a few years will be able to meet all the calls arising from superannuated members.

The Colliery Bailie Court or Court of Equity.—This is one of the most singular and useful institutions in Scotland, and it is doubtful if any other of the kind exists in Scotland, or perhaps in Great Britain. Its history is as follows. About eighty years ago, Lord Thomas Erskine was proprietor of the estate of Mar, and the collieries. The workmen being then serfs or slaves, and grossly ignorant, were living without comfort, and exceedingly degraded in the scale of society. Quarrels frequently took place amongst them; and the weak being oppressed and tyrannized over by the strong, the former had recourse to the Bailie of the barony of Alloa for redress, who, by his commission, had ample powers to correct offenders, by fine or imprisonment. The business of the baron bailie thus became very great, and much loss of work arose from the operatives attending from day to day at the Bailie Court. Thomas Lord Erskine saw the evils of this system, and devised a novel plan, which was to supersede the Bailie Court, so far as regarded his colliers, and institute the Alloa Colliery Bailie Court, or Court of Equity, which still exists, at the present day, in vigour and usefulness.

The constitution of the court was as follows:—His Lordship selected five of the most reasonable and discreet of the colliers, and nominated them bailies; one of the five he made president of the Court, whom he named Head Bailie; one of the workmen who could write, (and there were but few of them who could,) was appointed clerk; and the Court was completed by appointing an active workman in the decline of life to be the officer, to attend on the bailies, and give verbal summonses of appearance to those complained against. The jurisdiction of this Court was limited to the settlement of quarrels amongst the colliers. The bailies have no written appointment under Lord Erskine's hand; they are uniformly common colliers, and not one grade higher in condition than those who are brought before them, so that the workmen are truly and absolutely judged by their peers. It might be supposed that in a society so rude, individuals would have spurned the idea

of submitting to the sentence of such a court, and set the bailies at defiance. But it is most remarkable, that, in no instance was this ever the case; and the court goes on at the present day with the greatest efficiency and regularity. The Court is held now once in the fortnight; when the bailies are decently dressed, and no one is allowed to appear before them in their "heugh dudds," that is, in their pit clothes.

The head bailie or preses is chosen by the proprietor of the colliery. At one time, he remained in office seven years; but it was found expedient to shorten the period to three years.

The manner of electing the four assistant bailies is this: The two oldest colliers who are working at the coal-wall, and are in the list of count makers, give in a list of twelve workmen to the proprietor, who they think are men of discretion, and fit for the office of bailie; from this list the four assistant bailies are chosen by the proprietor.

This court of equity has now more than realized the objects which Lord Erskine had in view, and its influence has greatly tended to improve the general conduct of the men.

The Alloa Colliers' Fund or Friendly Society.—This Society was instituted in the year 1775, for the purpose of raising a fund for payment of schoolmasters, burying of the dead, and supporting old and sick persons belonging to the colliery, and members of the society.

The progress of this fund may be illustrated by the following statement:

	Received.	Paid out.
From January 1775 to January 1776, .	L.19 15 2	L.11 7 6
For the year from Martinmas 1833 to Martinmas 1834, .	345 3 5	332 7 0

Another fund was instituted in the end of the year 1833, for providing support to members and their widows in old age.

So correctly were these Societies managed, that the aggregate surplus stock, lying at interest at 5 per cent. was at Martinmas 1835 as follows:

Surplus stock of the old fund, .	L.251 8 11
Surplus stock of the new fund, .	1124 6 0
Total surplus stock,	L.1375 9 11

The two funds are now united, and the surplus stock had, in 1839, increased to about L.1600.

II.—CIVIL HISTORY.

In the large new edition of the Acts of the Parliament of Scotland, in nine volumes, folio, there are various allusions or references to

the parishes of Tullibody and Alloa. The earliest of these is in Vol. ii. p. 75, relating to a period so far back as 1452; the remaining references extend to the beginning of the eighteenth century. There are also short notices of Alloa and other parishes in the 1st vol. of the Macfarlane manuscript, (in the Advocates' Library, Edinburgh,) drawn up by Mr Alexander Rait, in the year 1722. In the chartulary of the abbey of Cambuskenneth, there are two charters which refer to the kirk of Alloa, the first entitled "*Contra Capella de Alway, May 20, 1409,*" beginning thus, "Henry miseratione Divina Episcopus Sancti Andreæ, capellario parochiali ecclesie de Clackmanane salutem, &c." and the second entitled, "*Instrumentum de Capella de Alway, 15 May 1401,*" beginning "In Dei nomine, Amen," &c. and referring to some arbiters chosen by the abbot of that day, for the interest of the convent on the one part, and a noble lord, Thomas Lord Erskine, Knight, on the other, about the "*servicio capellæ de Alway, quod dictus Dominus Thomas clamebat fieri dicte capelle per dictum dominum Abbatem ut perpetuum vicarium de Clackmanan,*" &c.

In the ill-fated attempt of Charles I. to introduce Episcopacy into Scotland, in opposition to the Covenanters, the Earl of Montrose, just before the battle of Kilsyth, (15th August 1645,) after remaining a night at Kinross, marched towards Alloa, in the neighbourhood of which he arrived in the evening, and passed the night in the wood of Tullibody. General Baillie, (leader of the forces of the Covenanters,) followed with such speed, that he encamped at Tullibody, the same evening his antagonist did at Kilsyth,—which he also reached with his troops, the following day. The Highlanders plundered the town of Alloa, and the adjoining lordships belonging to the Earl of Mar; but, notwithstanding this unprovoked outrage, the Earl and Lord Erskine gave Montrose, the Earl of Airly, and the principal officers of the army, an elegant entertainment in the Castle of Alloa. Montrose did not delay the march of his army, while partaking of the hospitality of the Earl of Mar. The Macleans then burnt Castle Campbell, the principal residence of the Argyle family in the lowlands, in requital of similar acts of the Marquis in the country of the Macleans. The Marquis of Argyle, now, also caused the house of Menstrie, the seat of the Earl of Stirling, the king's secretary, and that of Airthrey, belonging to Sir John Graham of Braco, to be burnt. This was done by way of retaliation for the destruction of Castle Campbell by the

Macleans. He, moreover, sent an insolent message to the Earl of Mar, notifying to him, that, on the return of the army from the pursuit of Montrose, he, the Earl, might calculate on having his castle also burnt, for the hospitality he had shown Montrose.

Burning of Alloa House.—On the 28th August 1800, Alloa House, that extensive range of buildings attached to the ancient Castle or Tower of Alloa, which was the residence of the family of Mar, suffered a terrible disaster. Between the hours of 11 and 12 P. M., a most dreadful fire broke out. No engine could be procured for some hours, and the rivulet near the house happened unfortunately to be dried up. No assistance being thus within reach, the flames continued to rage with incredible violence, till, by two o'clock in the morning, the roofs had fallen in, and before day light, the whole house was burned to the ground. Fortunately no lives were lost. All the books and papers were saved, with part of the furniture, and most of the pictures. Among many valuable curiosities, there was then consumed a picture of Queen Mary, on copper, (perhaps the only genuine original then existing in Scotland,) gifted by her to one of her ladies before her execution.

Maps, Plans, &c.—A plan of the town of Alloa, from an actual survey, was published in 1825 by Mr John Wood. The archives of the family of Mar contain some curious papers, relative to the transactions of ancient times, and the intimacy which existed between that Noble family and their sovereigns. (See former Statistical Account.)

Family of Mar.—The Erskines are of a very ancient family, and distinguished themselves in the service of their sovereigns, so early as the beginning of the thirteenth century. Sir William Erskine was an eminent adherent of King Robert Bruce. One of his descendants, Robert Lord Erskine, claimed the Earldom of Mar, to which he was served heir in 1438.

Robert, the fourth Earl of this* family, fell at the battle of Flodden Field. He was succeeded by John, the fifth Earl, who was Regent of Scotland, and who had the custody of his infant sove-

* Alexander Lord Erskine, third Earl of Mar, founded a chaplainry at St Mungo's Altar, in the Kirk of Alloa, for the welfare of the souls of King James III. and Christian Chrichton, his deceased spouse (daughter of Sir Robert Chrichton of Sanquhar), and for the health and prosperity of King James IV., himself, and Helen Home, his then wife (eldest daughter of Alexander, first Lord Home), relict of Sir Adam Hepburn of Hailes,—out of a number of small rents of property in the town of Alloa, extending together to L. 8, 13s. 4d. This is confirmed by charter under the Great Seal, Oct. 21, 1497.

reign, Queen Mary, whom he retained until the year 1543, when the estates of the kingdom ordered him to carry her to the Court of France. His son John, the sixth Earl, was appointed to an office of similar trust to that of his father, and had charge of James VI., afterwards King of England, when an infant. He was greatly distinguished by James VI., and was the friend and fellow-labourer of Napier of Merchiston, the Inventor of Logarithms.

John, the eleventh Earl of Mar, was unfortunately engaged in the Rebellion of 1715; and adhering to the fortunes of the Pretender, followed him to Rome, and afterwards to Paris and Aix-la-chapelle, where he died in 1732. His attainder took place in 1716. His Lordship was twice married; first to Lady Margaret Hay, daughter of the Earl of Kinnoull, by whom he had two sons; John, who died in infancy, and Thomas Lord Erskine. He married, secondly, Lady Frances Pierrepont (sister to the celebrated Lady Mary Wortley Montague), daughter of Evelyn, Duke of Kingston, by whom he had one daughter, Lady Frances Erskine, who married her cousin, James Erskine, son of Lord Grange, through whom the line of the family is kept up.

Whatever errors his lordship may have committed, it cannot be denied, by any one who reads the papers he has left behind him, that he had the general improvement of his country greatly at heart. It deserves to be generally known, that plans of the North and South Bridges, and the new town of Edinburgh, were found in his portfolio, after his death. His Lordship was the original projector of the Forth and Clyde Canal; he also planned the new town of Alloa, which is rapidly extending.

John Francis, late Earl of Mar, who died in 1825, had the titles and honours of the family restored to him in 1824. He endeared himself to his tenantry and dependents, by a life devoted to their happiness, and an unremitting attention to the prosperity of Alloa. Every view of his character entitles his name to be transmitted to posterity, with the most estimable and venerable characters of his times, and with a distinction to which no external rank or honour would have added any thing;

*"Hinc tua me virtus rapit, et miranda per omnes
Vita modos; quod, si deesset tibi forte creato
Nobilitas, eadem pro nobilitate fuisset."*—LUCAN.

John Francis, the present Earl of Mar, grandson of the preceding, is the premier Earl; and as Viscount Fenton he is the premier

Viscount of Scotland. He is also Earl of Kellie. His Lordship has very much improved the appearance of the neighbourhood, by enclosing, with an elegant stone wall, Alloa Park, which to the eastward, was wholly unenclosed. This, with the building of his Lordship's new mansion, has, during these several years, afforded employment to a great number of workmen.

In 1827, he married Philadelphia, daughter of Sir Charles Granville Stuart Menteath,* of Closeburn.

William David, Earl of Mansfield, succeeded his father, William Murray, the late Earl, in 1840. His Mansion-House of Shaw Park, and the adjoining plantation are in this parish; but the greater part of his estate in this county is in the adjoining parish of Clackmannan. When the former Statistical Account was written, this property belonged to the Earl of Cathcart.

George Abercromby, Baron Abercromby of Aboukir and Tullibody, is son of the gallant Sir Ralph Abercromby,† whose father, George Abercromby, Esq., mentioned with so much respect in the former Statistical Account, died in 1800, at the great age of 95 years:—Sir Ralph's brother, Sir Robert, K. B., was a general in the army, and Governor of Edinburgh Castle; and his other brother Alexander was a Senator of the College of Justice, under the name of Lord Abercromby—and one of the authors of the *Mirror and Lounger*, in conjunction with Mackenzie and others. James, the brother of the present Peer, late M. P. for Edinburgh, was Master of the Mint, and in 1835, was chosen Speaker of the House of Commons. He is now raised to the peerage, with the title of Baron Dunfermline.

Eminent Men.—*David Allan*, the celebrated painter, sometimes styled the Scottish Hogarth, was born at Alloa in 1744. He was sent to Rome at the expense of the Mar, Abercromby, and Cathcart families, for his improvement in the art of painting. Allan was the first Briton who contended for the prize of historical painting at Rome, where he gained the first prize.

Dr James Beattie.—It is said that Dr Beattie of Aberdeen, in the interval of the College Sessions, was employed, when a young man, in teaching a school at Alloa. In this situation, and in

* Descended from Walter, third high Steward of Scotland, and who was the first Earl of Menteith.

† As a remarkable instance of Sir Ralph Abercromby's benevolence of heart, and fatherly care of his people, it may be mentioned that he wrote a letter from Antwerp on the 15th July 1794, to the late Mr Mitchell of Tullibody, giving directions as to a new school and school-house in that village.

others similar to it, he increased his acquaintance with the principles of grammar, and acquired that accurate classical knowledge, for which he was afterwards so eminently distinguished.

Dr James Fordyce,—the eloquent author of “*Sermons to young Women*,” and “*Addresses to young Men*,” was minister of Alloa, from 1753 till 1760, when he removed to London.

Bishop Alexander.—Upon the east wall of the churchyard was a marble tablet to the memory of Bishop Alexander, who died, April 24, 1776, aged 82 years. This tablet is now removed to the new Episcopal chapel. The reputation of Bishop Alexander still lives in the church, and he continues to be spoken of as a person of apostolical simplicity, piety, and benevolence. The small chapel, in which he officiated at Alloa, was bequeathed by him to his successors in that town. He was thirty-three years Bishop of Dunkeld.

Land-Owners.—The valued rent of this parish is L. 7492, 19s. 2d. Scots, and that of each proprietor, as follows,—Earl of Mar and Kellie, L. 4189; Lord Abercromby, L. 2153, 19s. 2d.; West Cambus estate,—Mrs Moubray, Mrs Reoch, and Mrs Macfarlane, L. 401, 2s. 2d.; Earl of Mansfield, L. 145, 16s.; feuars of the town of Alloa, L. 601, 1s. 10s. The present land rental is L. 11,366, and the house rental, L. 8545.

Parochial Registers.—The register of baptisms and marriages, as well as the books of discipline, commence in February 1609; but all of them prior to 1664 are in a bad state of preservation, having apparently been much exposed to damp, and otherwise carelessly kept. The books of discipline or records of session are incomplete, from 1746 till 1760, there being only the records of six years between these two periods; but from 1760 to the present time, they are complete. The number of births registered for five years from 1699, averages 103; for five years from 1799, the average is 138; and for the five years preceding 1840, the average is 119. The number of marriages for the same periods averages respectively 29½, 33, and 61½.

If any opinion of the increase of population may be formed from the number of children's names recorded in five years succeeding 1610, viz. 224, annual average, 44½; and from the number in five years succeeding 1680, viz. 490, annual average, 98,—it must be supposed that the population had more than doubled in the interval of seventy years; and as there were no Dissenters at either of those periods, it is probable that all children were registered. It is

a remarkable fact, that, in the year 1680, there were 1300 communicants in the parish church, a number somewhat above the present average. Parents are becoming more and more careless as to the registration of their children, the want of which is frequently felt by individuals of every rank. It ought to be more generally known, that, by the 10th of Queen Anne, cap. vii. sec. 6, 1711, commonly called the Toleration Act, parents may be compelled to "enter the births and christenings of their children in the register books for christenings, belonging to the respective parishes in which they live."

Antiquities.—In the year 1828, an ancient Roman burying-ground was discovered, when the old road between the minister's glebe and Mar's hill was repairing. There were then found above twenty sepulchral vases or urns of coarse pottery, very rudely ornamented. They contained burnt human bones, and were placed in an inverted position, with the mouth resting upon a piece of flag-stone. There were also found two stone-coffins, each of about 3 feet in length. They were composed of flag sandstones. It appears that, in that remote age, those bodies which were not burnt were doubled and put into the stone coffins. In this instance, the bodies appear to have been those of men of distinction, as a pair of pure gold bracelets or bangles was found in each of the coffins. They were highly polished, but devoid of all ornament. The workmen who found these supposed them to be coffin handles of brass, and paid little regard to them; but at the very instant, a pedlar, a stranger in the district, having joined the workmen, took advantage of their ignorance, and bought the one pair they had then got, for a few pounds. The Antiquarian Society of Scotland, upon learning the circumstance, put advertisements in all the newspapers, offering the pedlar a reward if he would return them; but the bracelets never appeared. The other pair, exactly similar, were found in the custody of one of the workmen, from whom they were purchased by Mr Drummond Hay, Secretary of the Antiquarian Society, for twenty guineas; and they are now lodged in the Antiquarian Museum at Edinburgh.

The cemetery on Mar's hill is the third tumulus that has been discovered, within these forty years, in the immediate vicinity of Alloa. It is, therefore, not improbable that Alloa is the *Alauna* of the ancients, although there is little positive evidence concerning the true site of it; and that this cemetery, which rises on a

gentle acclivity from the banks of the Forth, was the burial-place of the Roman garrison.

About half-a mile east from Alloa, is a large upright stone, known by the name of the Stone Cross. On each side, the figure of an open cross is cut from the top to the bottom. In making a road near to this stone, about forty years ago, human bones were found ; and a few years ago, a stone coffin, composed of flag stones, about 3 feet long, was discovered, and two small figures of the true cross cut upon it. From this it is inferred, that the interment must have taken place early in the Christian era, when the Pagan rite of doubling up the body in short stone coffins had not been abolished.

Old Roman coins have occasionally been found in this parish, and it is particularly to be noticed, that some years ago, a brass coin was dug up with the letters S. C. upon the one side, and the words Augustus Tribunus upon the other.

Some years ago, there was dug up in the floor of an old house at the village of Cambus, a large jar full of silver coins of Scotland, England, and other countries. Some of the coins of Germany were about the size of a dollar. The greater part of these coins was sold by the workmen. About sixty of them were recovered by the Sheriff of the county, and have, since that time, lain immured in the Sheriff-clerk's office.

Alloa Tower.—This ancient edifice, which is 89 feet high, and its walls 11 feet thick, was built in the end of the thirteenth century, by the sovereigns of Scotland. In 1365, David II. gave it to Lord Erskine, in exchange for the estate of Stragartney, in Perthshire. Many of our Scottish princes received their education here. As they were, for more than two centuries, the wards of the Lords Erskine and Earls of Mar, who held generally the three principal fortresses of the kingdom, Edinburgh, Stirling, and Dumbarton,—James VI. was occasionally brought to live here during his boyhood, though his more frequent residence was the royal castle of Stirling. The last heir of the Scottish Monarchy, who was brought up here, was Henry Prince of Wales, eldest son of James VI., who died in his eighteenth year. Queen Mary spent some of her infant years in Alloa Tower ; and here, in after life, she passed two nights, when reconciled to Lord Darnley, in July 1566. The very celebrated George Buchanan, the boast of Scotland, is believed to have resided for a considerable

time in Alloa Tower, when superintending the education of the young prince.

Modern Buildings.—The new church was opened in June 1819. It is an elegant structure, in the pointed Gothic style, 124 feet by 78 over the walls, and ornamented by a lofty tower in the centre of the front, surmounted by a fine spire (built by subscription), which together rise to the height of 207 feet. The ground on which the new church stands, and the area in front, were generously given by the late John Francis Earl of Mar, with an express provision that it should never be made a burying-ground. The steeple of the old church has been allowed to remain; and near it, is the cemetery of the family of Mar, which is a handsome Gothic building, erected in the year 1819, on the site of the old church aisle, by the same nobleman, to whose generosity and spirited exertions Alloa is chiefly indebted for the ornament of its elegant new church.

The *Independent* chapel, lately erected in Castle Street, is a neat building, and was opened in 1839.

The *Episcopal Chapel* is a Gothic building, very judiciously planned by Mr Angus, and erected in 1839-40.

The *Academy* is a handsome though small building, in the Grecian style.

Alloa Park Mansion,—the seat of the Earl of Mar and Kellie, which has just been finished, is an elegant structure in the Grecian style, delightfully situated on a gently rising ground fronting the south, about a furlong eastward of the ancient tower. The front of the house with the wings is 120 feet, the depth extending backwards 185 feet, the whole forming an oblong square of beautiful polished ashler building, having a large court-yard in the interior. The external elevation, as well as the interior arrangements, reflect great credit upon the taste of his Lordship. The beautiful white freestone of which the house is built was procured from a quarry in Alloa Park. Four porters'-lodges have been lately erected. Garden walls with hot-houses, of which there are plans, are also intended to be added.

Tullibody House,—a seat of Lord Abercromby, and the birth-place of the gallant Sir Ralph Abercromby and others of that noble family, is pleasantly situated near the banks of the Forth, amidst fine old trees and surrounded by verdant parks. The house itself is ancient, and has no pretensions to architectural beauty.

Shaw Park House,—formerly the property of the Cathcart fa-

mily, now a seat of the Earl of Mansfield, stands on elevated ground about two miles north of the Forth. It is a fine building, and the view from it is very extensive, comprising the windings of the river, the castle of Stirling, Benlomond, and even Tinto in Clydesdale.

There are in the parish two distilleries, eight breweries, five woollen manufactories, two corn and flour mills, glass-works, foundery, brick and tile-works, a pottery, and a tan-work.

III.—POPULATION.

In 1755, the population, according to Dr Webster, was	Town.	Villages.	Colliery.	Country.	Total.
1784, } by last Statistical	3482	468	539	536	5025
1788, } Account,	3522	509	577	558	5166
1791, } by the census,	3132	458	652	560	4802
1801, ...					5214
1811, ...					5096
1821, ...					5577
1831, ...					6377
1836, taken for the Church Commission,					6867
				In town of Alloa,	4820

In 1831, the population was as follows :—

Number of males,	3062
of females,	3315
Total,	6377
Population residing in the town,	4417
Tullibody village,	520
Cambus, do.	225
the colliery,	819
the country,	396
Number of families,	1598
inhabited houses,	976
houses uninhabited and building,	55

Population as ascertained in June 1841 :—

	Houses.	Inhabited.	Uninhabited.	Building.
Town of Alloa,	839	14		2
Village of Tullibody,	137	0		0
Cambus,	54	1		0
Holton Square (Colliery),	58	0		0
Coalyland (Colliery),	53	1		0
All the rest of the parish,	194	5		1
Total in town and parish, <i>quoad civilia</i>,	1335	21		3
East parish of Alloa, <i>quoad sacra</i> , (included in the above),	448	4		2
	Families.	Male.	Female.	Total.
Town of Alloa,	1290	2646	2797	5443
Village of Tullibody,	150	278	322	600
Cambus,	70	138	149	287
Holton Square (Colliery),	63	151	144	295
Coalyland (Colliery),	60	110	124	234
All the rest of the parish,	238	528	543	1071
Total in town and parish, <i>quoad civilia</i>,	1871	3851	4079	7930
Computed number of seamen abroad,				200
East parish of Alloa, <i>quoad sacra</i> , (included in the above),	632	1227	1239	2466

There is only one noble family residing in the parish.

The habits of the working classes have certainly improved, during the last forty years ; although, in many instances, the abuse of spirituous liquors has had an opposite tendency.

Poaching has prevailed of late years, so far as nearly to exterminate certain kinds of game ; such as hares and pheasants. Pawnbroking in one establishment has been carried on, to a greater or less extent, for several years.

The number of illegitimate births in the whole parish, during the last few years, cannot be ascertained ; but the illicit intercourse of the sexes, has of late become lamentably frequent.

IV.—INDUSTRY.

Agriculture.—*

The number of imperial acres under cultivation,	4375
Of which about 1250 acres are carse soil, the remainder what is termed dryfield.	
The number not cultivated, but which might be embanked from the river Forth, and profitably added to the cultivated land,	12
The number under wood,	514

The young plantations consist mostly of oak and other hard wood, mixed with fir, the latter being periodically thinned out. The thinning, pruning, &c. appear to be under judicious management. At present, the average rent of land is about L. 2, 10s. per acre. The average grazing of a cow or ox, weight about 35 stones imperial, costs about L. 3, 5s. ; and a sheep 13s.

Wages.—Ploughmen's wages rate at 9s. 6d. per week, winter and summer ; labourers, 10s. to 11s. ; women's, 8d. to 9d. a-day. A variation of wages takes place during harvest, when women get 2d. an hour, and men 2s. per day without victuals. Smith-work is sometimes performed by estimate at about L. 3, 8s. for each pair of horses kept on the farm, which includes all kinds of smith work required on it. This is about the average expense of farm smith work ; and the wright work upon the same principle, at the rate of L. 2, 10s. Saddler work, per pair of horses, is upheld at L. 1, 15s. a-year.

Only a few of various kinds of sheep are grazed for the butcher. The breed of cattle, in general, does not belong to any particular class. The Ayrshire seems to be the stock aimed at. The short-horned breed was introduced by the late John Moubray Esq. of Cambus, from the best stocks in the south, and was followed up by Thomas Ritchie, Esq. Bowhouse ; the crossing of which with these has tended to improve the stock, in particular,

* Kindly furnished by David Boosie and Thomas Ritchie, Esqrs.

towards early maturity,—two-years-olds now being equal to what threes were formerly.

The husbandry pursued is generally more of a cropping than a breeding character. Upon carse soils a sixth rotation is generally adopted, viz. 1. fallow or green crop; 2. wheat; 3. beans; 4. barley; 5. grass; 6. oats. Some approve of, 1. fallow or green crop; 2. wheat; 3. grass; 4. oats; 5. beans; 6. wheat, barley or oats. The latter rotation is supposed to produce better grass, and is more sure after wheat than after barley which succeeded beans. The dry-field is cultivated much in the same way, only a few years of pasturing is sometimes introduced; and barley is taken when the soil is not adapted for wheat, and also a mixture of pease or vetches among the beans. The principal improvements to be recommended are, more thorough draining, more particular attention to stock, and a more practical application of the artificial manures, which might prove very advantageous on the dryfield soils when properly drained. For the advancement of these improvements, a greater sympathy between landlord and tenant is necessary. Irrigation has not been tried, although there are situations in which it might be profitably introduced. The embankments on the river Forth, extending about six miles, are all of a substantial nature, and prevent about 300 acres from being overflowed. The banks of the Devon are also embanked to the extent of about five miles, preventing its overflow upon about 200 acres; and provided these are kept in good repair, nothing farther seems necessary, than the reclaiming of the twelve acres already referred to. The general duration of leases is nineteen or twenty-one years. The state of farm buildings is, by no means, in accordance with the improved state of husbandry. Inclosures have been made to a fair extent; but, in some instances, they are ill attended to.

The improvements recently introduced have been in draining, as formerly stated, whereby an additional quantity of green crop has been raised, instead of fallowing; but, not so as to supersede the necessity of the latter. After the great depression which took place on the termination of the late war, and also from the change of the currency in 1819, agriculture received an impetus from the attention of the Highland Society being directed to Clackmannanshire by the Right Honourable Lord Abercromby. The first premium which was offered by them for the greatest extent of wedge-drained land in Scotland, was gained by one of his Lordship's

tenants in this parish,—the late John Moubray, Esq. of Cambus.

Produce.—The agricultural produce may average on carse soils, wheat, about 32 bushels per acre; barley, 34 bushels; oats, 38 bushels; beans, 23 bushels; hay, 40 cwt. On dry-field soils, wheat, 25 bushels; barley, 29 bushels; oats, 34 bushels; pease and beans, 19 bushels; hay, 24 cwt.; potatoes, 4 to 8 tons, according to soil and dressing; turnips, 15 to 32 tons.

Quarries.—Two quarries, one of white, and the other of a red stone, are now wrought in this parish, but neither of them to any great extent.

Fisheries.—There are two salmon fisheries in the parish, one of them to the westward of Alloa ferry, belonging to the Earl of Mar and Kellie, and let at from L.30 to L.40 per annum. The other at the village of Cambus, belonging to Lord Abercromby, is let on lease at L.20 a year. The nets now used are coble, yaire, and long nets. The salmon fisheries here have been on the decline for some years, and have afforded an insufficient return to the tacks-men. There are about forty men employed.

Clackmannanshire Union Agricultural Society.—This county and district were indebted to the venerable John Francis, late Earl of Mar,* for many and great improvements in agriculture, and rural economy. By the spirited exertions of that nobleman, this small county, at least fifty years ago, held a prominent place among the most highly cultivated, north of the Tweed; and it is remembered by many, that a ploughman from Alloa, about that period, was sent with the necessary implements, to plough before his Majesty King George III. The first great ploughing match in Scotland was held here in 1784; and even then, this parish was distinguished for the breeding of stock, and other improvements.

The Highland Society, in 1827, having offered premiums for improving the breed of cattle, caused the formation in 1828 of the present Agricultural Society, who made choice of Robert Bruce, Esq. of Kennet, as their president. To this gentleman the society have all along been much indebted for the countenance given by him to agriculture in general, and for keeping alive a spirit of competition and enterprise, by his assiduous care and

* This nobleman, many years ago, with reluctance, turned out the tenant of the farm now called King of Moors, whose name was Donaldson, on account of his invincible indolence, and aversion to improvement. He was the lineal descendant of the person whom King James V. designated "King of the Moors:"—some of the grandchildren of this last representative of Majesty are still in Alloa, and when at school, about twenty years ago, were generally known by the name of "King."

attention to its true interests. Mr Bruce has, for a number of years, given premiums for the best cultivated turnip-fields of various sizes, according to the extent of the farm; which is improving the cultivation of that valuable root in this district. Lord Abercromby has not neglected to carry forward what, he saw, would be highly beneficial to the district, by giving premiums for the best cultivated farms of two classes,—the one below, and the other above a hundred acres. His Lordship also assisted the Society in their efforts to improve the breed of horses, by contributing to a premium for the best draught stallion. Other gentlemen in the neighbourhood also give premiums for stock, &c. through the Society, and the competition thus created has caused a spirited and enterprising rivalry amongst the breeders of the various descriptions of stock, which has tended much to their improvement.

At a ploughing match in spring 1839, there were 107 ploughs, a number which, it is believed, has not been attained by any other Society whatever.

Clackmannanshire Horticultural Society, instituted in 1835, has for its object, not only to encourage the culture of useful and ornamental plants, including flowers, fruits, and vegetables, but also to disseminate botanical and horticultural knowledge. For this last purpose, there is a library consisting of books on both these subjects, and on rural economy in general.

Manufactures.—The chief of these is the woollen, which was not carried on to any great extent, until of late years, when great additions were made to some of the mills. Several new ones have lately been erected on a very large scale; and at present, there are six extensive factories, four of which are driven by steam. The principal articles manufactured are yarns, plaiding, shawls, tartans, druggets, blankets, and cloths of various descriptions. The following statements, from information kindly furnished by some of the principal manufacturers, will give some idea of the extent of the woollen manufacture in this parish, for the year 1839:

Number of men employed,	190
women,	72
boys and girls,	89
Amount of wages paid weekly,	L.190.
Quantity of wool manufactured,	483,000 lbs.
Value when manufactured,	L.71,400.
Hard and soft soap consumed yearly,	45,230 lbs. L.740.
Alkalies, dye stuffs, and oils,	L.3,000.
Number of spindles used in spinning,	6,900.
Quantity of yarn manufactured,	141,900 spindles.
Capital invested in the trade, consisting of machinery, raw material, and manufactured goods,	L.42,800.

Connected with the large works at Keiller's Brae is a manufactory of machinery on an extensive scale.

Distilleries.—There have long been in the parish two distilleries, the one at Carsebridge, and the other at Cambus, which are both in active and constant operation. The following particulars respecting them have been communicated by the proprietors. At the Cambus distillery, there are about 400 cattle fed; about 374 quarters of malt are consumed weekly, making 6000 gallons of spirits per week, or 300,000 gallons per annum; there are sixty men employed at the works. The amount of duty paid is as follows:

Distilling duty per annum,	L. 50,000	0	0
Malt duty do.	10,000	0	0
	L. 60,000	0	0
Deduct drawback on malt,	9,000	0	0
Total per annum,	L. 51,000	0	0

Carsebridge distillery is nearly on the same scale as the Cambus; and the amount of duties paid by each is nearly the same, including the duty on malt and spirits.

Tannery, &c.—There is an extensive tan and currying work in Tullibody, where leather, &c. is manufactured to the value of L. 20,000 per annum. The making of glue is also carried on by the same company; and they have also commenced the grinding of bones for manure, by means of machinery driven by steam. At these works, are constantly employed from 30 to 40 men. Their employment is deemed a peculiarly healthy one; and it has long been observed, that pulmonary complaints are unknown among them.

Glass-Works.—These works commenced at an early period, for the making of bottles, and are said to have been first worked by a Danish company. The buildings are extensive, covering a space of about six imperial acres. They are most conveniently situated for trade; and coals, at a very easy rate, are conveyed from the pits to the furnaces, by a railway of the most approved construction. There is a pier adjoining to the works. A Joint Stock Company, in 1825, erected three additional cones, and other buildings; when they continued the making of bottles and added that of flint glass of a quality equal to the goods of Newcastle. This Company continued their operations, till about 1832. Another Company then purchased the works; when, in addition to the making of bottles, they commenced the manufacture of crown glass on an extensive

scale ; at which time, there was none made elsewhere in Scotland. Above 200 men were then employed,—adding much to the revenue, and prosperity of the town of Alloa. Since the beginning of 1839, the making of crown glass has been discontinued, and the works, of late, have been on rather a reduced scale, but are about to be extended.

The *Foundry and Steam Engine Manufactory* was erected in 1832, and gives employment to about 100 men.

Brick and Tile Works.—Bricks and tiles have been articles of manufacture at Alloa, for a long period of years ; but it was not till the year 1815, that the works were carried on to any great extent. The present proprietor enlarged the works considerably ; improving the mode of manufacture, and making fire bricks for the first time in the district, and which are reckoned not inferior to those produced at Stourbridge. It was here, we believe, that steam power was first introduced (in Scotland), in preparing the clay used in the manufacture of common bricks and tiles, as well as the London system of brick-making. Not fewer than forty hands are employed at these works, where there is a convenient wharf, from which the different articles are transported to all parts of the world.

Pottery.—In addition to the former pottery, a new one has lately been built, at which the manufacturing of white and coloured ware in all its branches is carried on.

Gas-Work.—In the year 1828, a gas-work was erected at the river side by subscription, amounting to L. 3000, in shares of L. 10. By this means the town is lighted. Gas-pipes are also laid to places in the neighbourhood, particularly to Cambus distillery, a distance of two miles, where there are 100 burners. The price of shares has risen to about L. 14 each, so that a fair remuneration is likely to be secured to the subscribers. Gas is sold at the rate of 12s. per 1000 cubic feet, subject to a discount according to the quantity consumed. The gas made here is allowed to be of first-rate quality.

Ship-Building.—The trade of ship-building has been long and successfully prosecuted here. Vessels of from 300 to 400 tons are frequently built, and last year a fine vessel, of 450 tons burden, was launched, intended for the East India trade. There is a dry dock, at which vessels are repaired. Boats are also built. The various departments employ continually about fifty men.

Rope and Sail-Making.—This branch of trade is also of long

standing, and is extensive, employing about 8 men in summer, and about 24 during the winter.

Mills.—The mills at Alloa are for grinding wheat, oats, and malt, and are capable of grinding about 250 quarters a-day. They are driven by two water wheels, and occasionally by steam when water is deficient. A thrashing-mill is driven by the same machinery. There are also mills on a less extensive scale, for the same purposes at Cambus. There are many thrashing-mills in the parish, some of which are driven by steam.

Tobacco and snuff were formerly manufactured here to a great extent,—what was called Alloa pig-tail having been well known in London. The trade in these is still considerable.

Breweries.—At the eight breweries in the parish, about 22,000 quarters of malt are consumed annually, the duty on which is L. 22,733, 6s. 8d. The quantity of ale made amounts to 80,000 barrels: it is exported to England, the continent, North and South America, the East and West Indies, and Australia. Alloa has long been celebrated for the superior quality of its ale, which was first brought into notice by the late Mr Robert Meiklejohn.

*Customs, Shipping, and Tr. de.**—About the year 1710, Alloa was made a port, where vessels were registered, and all other custom-house business transacted; and it appears that, from that period to the close of the century, a very considerable trade was carried on between it and Holland, the Baltic, and Portugal; but in consequence of the bonding system having been introduced with the sanction of Parliament, at the larger ports, Alloa as well as all smaller ports fell off in their importations from foreign parts. The direct importations have, however, of late years increased; the bonding of timber and all other goods being now allowed at this port, we may confidently look forward to a great increase in trade from the Baltic, Holland, &c. The locality is peculiarly favourable for carrying on an extensive traffic, being in the immediate vicinity of large public works; and Stirling (a branch of the port of Alloa), being in itself populous and wealthy, as well as being the entrance to the West Highlands, affords advantages to spirited and enterprising merchants, for carrying on a profitable trade in Baltic and Dutch produce, &c.

Alloa has commodious quays at which vessels of a large size can lie with safety, the depth of water being at stream-tides 22, and at neap-tides 14 or 15 feet. The dead water at low ebb in spring-

* Kindly furnished by James H. Cobban, Esq. Collector of Customs.

tides at Alloa ferry, is about 10 feet in the middle of the river. The amount of registered tonnage at Alloa (including ships belonging to Kincardine and Stirling), is upwards of 19,000 tons, which is larger than at any port in the Firth, except Leith, and even that port does not much exceed in this respect. The registered tonnage strictly belonging to Alloa is 9662 tons, and the ships are of a very superior class, being employed in trading to every quarter of the globe. It may be remarked that the first importation of tea to any port on the east of Scotland, after the China trade was thrown open, was by the ship "Isabella" of Alloa, of 423 tons. The cargo was landed at Leith.

There is a very considerable coasting-trade carried on here, both inwards and outwards. The number of vessels entered inwards during the year 1838, was 600, and the number cleared outwards 1250. The importations coastwise, consist chiefly of corn for the use of the numerous distilleries and breweries; wool, and fuller's-earth for the woollen manufactures in the neighbourhood, and also groceries, wines, teas, &c. from London, Leith, and Glasgow. The exports consist of coals (of which about 80,000 tons were shipped during the year 1838, coastwise and to foreign ports), pig-iron, woollen manufactures, glass, ale, whisky, leather, fire-bricks, roofing-tiles, drain-tiles, and common bricks. The importations from foreign ports consist of timber, battens, deals, hemp, oak-bark, bones for agricultural purposes, &c. Altogether, we would say, that Alloa, as to its shipping and trade, is in a very prosperous condition, with every prospect of its further increase.

V.—PAROCHIAL ECONOMY.

Town, Markets, &c.—The town of Alloa was noted so early as the time of King Robert Bruce. It is under the jurisdiction of a baron bailie, appointed by the Earl of Mar and Kellie. Being virtually the county town, the Sheriff and Justice of Peace Courts are held here; and it is the polling place for the county of Clackmannan, in the election of a Member of Parliament. The principal business of the surrounding district is carried on here. There are markets on Wednesday and Saturday, the latter of which only is well attended. The plan of the town is irregular; but in the principal streets, most of the old houses have been replaced by handsome buildings, and many of the shops are of peculiar elegance. John Street, planned by John Earl of Mar, in the beginning of the last century, is about 80 feet broad. It leads to the harbour, terminating in a beautiful gravel walk, with a row of lime

trees on each side. The streets are well paved and regularly cleaned, with the exception of the old town, part of which is in a ruinous state. The town is extending rapidly toward the west, where several elegant villas have been erected.

Means of Communication.—Besides the post-office twice every day, there is a daily communication with Edinburgh, Stirling, and all the towns on the Firth, by steam-packets. A coach runs daily between Alloa and Glasgow, by way of Falkirk; and another runs by way of Stirling, for the Glasgow canal boats. There is one weekly carrier for Edinburgh, and two for Glasgow, who generally go twice a-week. There are, besides, carriers from Alloa to all the principal towns in the neighbourhood. There are about twelve miles of turnpike-road in the parish. All the bridges are in good order, and the fences generally well kept.

The revenue of the Post-Office, on an average of three years, preceding the commencement of the penny postage, may be stated at L. 1500. Since the alteration in the rates of postage, the number of letters has increased threefold, and averages at least 2000 weekly.

Banks.—There are in the town branches of the Commercial Bank, the Western Bank, and the Glasgow Union Bank; for the last of which, an elegant and substantial building has lately been erected.

Stamp-Office.—The amount of the sale of stamps in the Stamp-Office at Alloa, for five years ending 21st March 1840, was L. 8852, 18s., being an average of about L. 1770 per annum.

Mechanical Ingenuity.—Michael Stirling, who resided at Cambus, in this parish, was the first in Scotland that thought of thrashing by machinery. He invented what is called a "scutch-mill," a rude machine, long ago disused.

The first effective thrashing-machine in Scotland was constructed, in 1787, by Mr George Meikle, the son of its celebrated inventor; both of whom resided here. The last thrashing-machine at which old Meikle himself worked was lately in complete repair, upon the estate of Mar. Mr Meikle, Junior, made a decided improvement upon what has been called the Persian wheel; and Mr Whitworth, the celebrated engineer, adopted, without hesitation, the improvement suggested by Mr Meikle, in preference to his own, in the construction of a wheel for carrying off the moss at Blair Drummond.

Mr James Brownhill, miller at Alloa, first applied the stones

of the Abbey Craig, near Stirling, to the purpose of grinding wheat into flour. The Clackmannanshire millstones are a useful substitute for the French bur-stones, which could not be obtained in Britain during the late war; and they are now considered superior in some respects to the French ones. Many hundreds of them are now used in different parts of England and Scotland. They are sold at from L. 16, 16s. to L. 21 a pair, whereas bur-stones cost about L. 63. The ingenious individual here mentioned was rewarded for his discovery by the Society for the Encouragement of the Arts, who presented him with L. 105.*

The Village of Tullibody.†—This village is situated about two miles to the west of Alloa, and claims a comparatively high antiquity. It is said to be coëval with the accession of Kenneth King of the Scots, about the year of our Lord 834. On succeeding to the throne, this monarch, as may well be conceived, felt highly exasperated at the conduct of the Picts towards his father, whom they put to death, and whose head they affixed to the gate of their capital. Determined on revenge, and supported by the nobles, he proceeded forthwith against the enemy. Druskein, the Pictish monarch, aware of the gathering storm, took every precautionary step to avert its effects. He summoned to his standard every Pict capable of bearing arms, and provided a large body of English auxiliaries. Assembling at Maiden Castle, a fortified place in Lothian, and at that time in his possession, he marched in a westerly direction, and, ordering supplies at Camelon, proceeded to Stirling, where he crossed the Forth, intending to encamp on its northern bank. In the meantime, Kenneth had approached to the distance of about five miles from Stirling; and, receiving intelligence of the position and strength of the enemy, he assembled his nobles and troops on the rising crofts on the east of the river Devon. Here, with the greatest solemnity, he and they took an oath, that they would not lay down their arms until either they or their adversaries fell. Here also they encamped for the night.

Next morning at day-break, Kenneth, with all his forces, proceeded westward, and, coming up with the enemy, attacked them with such skill and impetuosity, that in a few hours they were totally routed, with immense slaughter. In the evening, he

* Mr Henry Hutchison, Manager of the Alloa Rope-works, invented a very ingenious machine, by which can be solved many of the astronomical problems usually solved by the terrestrial and celestial globes.

† In this part of the article, the writer has been much indebted to the assistance of the Rev. George Hialop

returned with his elated troops to the fields which they had occupied in the morning; and as a mark of gratitude for this signal victory over his hereditary foe, and at the same time, as a memorial of the distinguished bravery and loyalty of the people, he caused a stone to be erected, where the royal standard then stood, observing the ceremonial of anointing the pillar and making a vow. The stone was removed some years ago. But the spot is well known to the neighbourhood, and still receives the name of "the stan'in' stane." A little to the east of the field where the main body of his army was encamped, he also founded a village, which he called "Tirly-bothy," (since varied into Tullibodie and Tullibody,) a name originally signifying "the oath of the croft." Such was the origin of this village. For upwards of three centuries subsequent to the period mentioned, little of the history is known.

Tullibody Church.—This small but venerable edifice, stands a little to the north of the village. It was built by David I. King of Scotland, in the year 1149. By charter, bearing the same date, he granted as a provision for its priest, certain lands in the neighbourhood and Inches (islands) in the Firth of Forth; and the pious monarch ordained that it should be subordinate to the rich and splendid abbey of Cambuskenneth, which, two years before, he had built on the very spot where his royal ancestor, Kenneth, gave the fatal blow to the Pictish dominion.*

For upwards of 400 years the rites of the Roman Catholic faith were celebrated in this church; and, as a necessary consequence, its deep shades of ignorance and superstition overspread the adjacent plains. It is recorded that the church was unroofed by the French in 1559. These, under Monsieur D'Oysel, were stationed on the coast of Fife; and hearing of the arrival of the English fleet, they were thrown into such alarm that they thought of nothing but immediate retreat. They proceeded accordingly towards Stirling, intending there to cross the Forth. Kirkcaldy of Grange determined to arrest or at least retard their progress, broke down the bridge of Tullibody over the Devon, about a mile to the west of the village. Finding it impassable, they unroofed the church, employing the materials to cover the breach

* Cambuskenneth signifies the creek or haven of Kenneth; the word "Cambus" being from the ancient British *Camus*, a bay, creek, or haven; unless, as some suppose, it be derived from the Latin word *campus*, a plain or field. The churches, with their tithes and pertinents belonging to this abbey, were those of Clackmannan with its chapels, Tillicoultry, Kincardine, St Ninians with its chapels, Alva, Tullibody, with its chapels at Alloa, &c. The first abbot was called Alfredius.

which Kirkcaldy had made. It seems probable from this circumstance, that, for some time before, the church had ceased to be in communion with the church of Rome; otherwise her adherents would not have committed upon it this act of desecration and impiety.

The truth is, that in this neighbourhood, as throughout the country at large, the Roman Catholic faith had by this time fallen into very general contempt. That this must have been the case is proved by the following tradition connected with the "Maiden Stone,"—a ponderous stone coffin still existing here.

About the year 1449, Miss Martha Wishart, only daughter of the laird of Mireton, a lady of great beauty and accomplishments, fell deeply in love with Mr Peter Beaton, at that time priest of Tullibody. The passion was reciprocated by him. But his intentions were not honourable; and when this was discovered, the circumstance affected her sensibilities so much that her health gave way. She died, leaving express injunctions that her remains should be deposited in a stone coffin, to be placed at the door of the church, in order that the perfidious priest should behold this memorial of his wickedness every time he passed to discharge the duties of his office. It is not difficult to conceive the sensation which, even in that age, such conduct, on the part of the priest, would produce in alienating the minds of the people from the Romish Church. The depravity of that church had in truth become so great as to revolt even some of her own functionaries. Thus, we are informed that, in the year 1538, Thomas Forrest, vicar of Dollar, a man of great learning and piety, espoused the principles of the Reformation, and publicly exposed the errors and corruptions of Popery. He was apprehended, and suffered martyrdom for the truth. But the blood of martyrs is the seed of the church. This transaction roused the indignation of Thomas Locklaw, at that time priest of Tullibody; and led him to inquire into the principles espoused by his late brother in the faith, in common with reformers in general. The consequence was, that he adopted the same principles, and became one of the bitterest enemies of the Romish Church. Among other things, he inquired into the subject of marriage; and finding it warranted, not only by the express declarations of Scripture, but by reason, he gave practical expression to his belief, by actually entering into the marriage relation. We are informed that the superior clergy were, in consequence, so much exasperated, that, at their instance, three or four men were

publicly put to death at Stirling, for the simple offence of attending that marriage and eating flesh in Lent. Locklaw himself, along with Robert Logrie, canon regular of Cambuskenneth, who also had renounced the Romish religion, retired into England, and, in common with the persecuted of the time, sought an asylum under the protecting auspices of the mild and pious Edward VI. This was the last priest who officiated in the church of Tullibody.

In the dismantled condition in which it was left by the French, the church of Tullibody remained till about the middle of last century, when it was roofed in, and in other respects improved by George Abercromby, Esq. of Tullibody. It has since been employed as a cemetery to the family. About six years ago, it was fitted up by subscription as a preaching-station for the benefit of the village and neighbourhood, and especially of those who, from age and other causes, are prevented from attending their places of worship in Alloa.

Ecclesiastical State.—Alloa was formerly a chapel dependent on the parish church of Tullibody; but afterwards became a separate parish; and, says Bishop Keith, “swallowed up the mother church.”

The Act of Assembly uniting Tullibody with Alloa is to be found in the Book of the Universal Kirk, Assembly 1600. From that Act, it appears that Alloa was a chapel, and Tullibody a kirk,—that the people of Tullibody had, by order of the Presbytery of Stirling, rebuilt the kirk, and chosen a minister, who, for want of adequate support, was forced to leave them; that Tullibody was a distinct parish, containing 400 or 500 communicants; that the Abbot of Cambuskenneth drew all the teinds of Tullibody; and that the Earl of Mar furnished a sufficient stipend to the minister officiating at Alloa.

The church of Alloa being at the west end of the town is conveniently placed for the great bulk of the population. The old church, which, for more than seventy years past, had been accounted much too small for the congregation, in August 1815, was declared ruinous, and the new one was thereafter built.

Benefactions.—In the Advocates’ Library, there is a MS. volume containing a list of all the pious donations and mortifications of Scotland from the reign of James I., A. D. 1424, to 1702; in which is to be found a charter of confirmation of a mortification made by Alexander Lord Erskine to a chaplain at St Mungo’s altar in the kirk of Alloway, of a number of small rents out of

the town of Alloway, (particularly mentioned therein, amounting together to L. 8, 13s. 4d., dated 3d October 1497.)

In the year 1739, Mr Robert Johnston, * merchant in Alloa, left some houses in the town, the rent of which, with the interest of L. 600 then in the hands of a company of merchants in Glasgow, was to be applied for the maintenance of an assistant minister. The L. 600 was unfortunately lost in the hands of one of the partners, and nothing left for the assistant minister but the rent of the houses, now somewhat under L. 25 a-year. This loss was compensated by the late worthy Lady Charlotte Erskine. Her ladyship, by a deed executed in 1787, bequeathed L. 1200 for making an addition to the church of Alloa, to afford accommodation to the poor inhabitants who are unable to pay for it; and the remaining seats to be let at a moderate rent yearly; the sum to be applied first in keeping the said addition to the church in repair, and the surplus to be added to the stipend of the assistant minister. Her ladyship, also, bequeathed the sum of L. 800 for a stipend to an assistant minister in the parish, "the right of nominating and presenting the said assistant minister being in the gift of the proprietor of the estate of Mar."

The church is seated for 1561 persons. There are free sittings for paupers which accommodate about 60 persons. There are also 246 sittings let for behoof of an assistant minister, under the late Lady Charlotte Erskine's settlements.

The manse was built prior to 1700, and has been several times repaired.

The glebe consists of 12 acres, worth L. 6 per acre. The stipend is 19 chalders, half meal and half barley, payable by the *fiars* of the county; with an allowance of L. 10 for communion elements. The last augmentation was granted in 1831. There is but a small amount of unexhausted teinds, viz. L. 101, 9s. 7d. The parish minister is allowed free coal, *i. e.* on paying the expense of working and driving.

The causes of the separation between the Original Burgher Associate Synod and the Establishment having been removed, the Rev. John Wright, minister of the former denomination here,

* Of the four silver communion cups, two were a donation, each with this inscription: "This cup was dedicated to the Church of Alloa by Helen Hamilton, relict of Mr Robert Johnston, merchant there, 1741." A large and massy silver communion plate is thus inscribed, "This dedicat to the Kirk of Alloway, by Ladie Marie Arskine, daughter to the Earle of Mar; and payed be monies mortified be her for that end, before her death; and made anno 1691."

has been recently received as a member of the Presbytery of Stirling; and that body has allotted him a parochial district under the name of the East Parish of Alloa. Mr Wright's stipend is paid by the seat-rents and collections. By the Constitution of the Church, the minimum stipend was L. 100, which the managers were bound to pay; but Mr Wright always receives a considerable sum additional.

The Dissenting places of worship in the parish are as follows: Two churches belonging to the United Associate Synod; one Scottish Episcopal chapel; one in connection with the Congregational Union; one belonging to the Methodists; one belonging to the New Jerusalem Church. The stipends of the Dissenting ministers are paid from the proceeds of the seat-rents and collections made at the church doors. The amount of stipend of the minister of the first Secession Congregation is L. 142, with an additional gratuity for several years back, of L. 20 a year, besides house and garden, and an allowance for sacramental expenses; that of the minister of the second, L. 125 a-year, with a house and garden, besides payment of taxes, an annual rate to a widows' fund, and an allowance for sacramental purposes.

Different denominations in the parish.	No. of families.	No. of persons of all ages professing to belong to each denom.		No. of sittings.	No. of sittings let.	No. of commun.	
Parish church,	766	-	2968	-	1561	246	1210
Tallibody church,	117	-	580	-	230	seats free.	130
East Parish church,	190	-	750	-	603	243	333
1st United Secession,	300	-	1350	-	722	660	650
2d Do. do.	200	-	850	-	640	400	450
Episcopalians,	79	-	...	-	350	220	68
Independents,	80	-	300	-	428	seats free.	90
Methodists,	12	-	50	-	300	40	25
New Jerusalem church,	6*	-	26	-	100	...	16

Prior to 1838, there were 62 Roman Catholic families, consisting of 112 individuals, residing in the parish. Since that time there are not more than 20 individuals of that denomination remaining in the parish.

* There have existed in Alloa a few readers of the writings of the New Jerusalem church for about forty years. About the year 1798, Messrs Wright and Hands, members of it from London, settled at Airthrey, near Stirling, for the purpose of working a mine of copper ore, for the reducing of which to a metallic state they had an establishment in Alloa. After two or three years trial, owing to the mines not yielding a sufficient quantity of pure metal to cover the expense of working it, Messrs Wright and Hands gave up the undertaking. On leaving Alloa, they presented the readers with a few New-Church works, which formed the commencement of their present library.

Divine service is well attended both in the Established churches, and in the Dissenting chapels.

There is a Bible Society in the parish, supported by churchmen and Dissenters,—the yearly income of which is about L. 40. There is also a Religious Tract Society, supported by all persuasions, the average annual contributions to which may amount to L. 20. Besides these Societies, the congregations in connection with the Establishment collected last year for religious and charitable purposes, the sum of L. 220 ;* the first congregation in connection with the United Associate synod, L. 281 ; and the second, L. 94, 10s.

The following is a list of the clergymen of the parish of Alloa from the commencement of the present existing records:—Episcopalian, Mr James Duncanson, from 1609 to 1620 ; Mr John Craingelt, 1621 to 166— ; Mr James Wright, admitted on 23d November 1664.—Presbyterian, Mr George Turnbull, admitted on 26th September 1690 ; Mr John Logan, admitted on 2d May 1704.

Mr Logan was translated from Kilmadock. Prior to Mr Logan's induction, the glebe was in front of the manse, where the Broad Street, or John Street, now stands, having been then feued by John Earl of Mar. Mr John Taylor was translated from Tillicoultry, and was admitted on 7th December 1725 ; and in March 1735, he was translated to the Tolbooth Church, Edinburgh. Mr James Gordon was translated from the parish of Alford, in Aberdeenshire, in 1736.

Mr James Syme was inducted in or about 1750, and was settled by military force, in consequence of the opposition of the parishioners, although afterwards they became much attached to him. Mr Syme was succeeded by Dr James Fordyce, who was translated from Brechin in October 1753, and went to London in 1760, when he was succeeded by Mr James Frame on the 25th September 1760. Mr Frame was succeeded by Mr James Maxton on the 8th September 1803 ; and he was succeeded by the present incumbent on the 26th November 1828.

We have no records of the Episcopal church of Alloa prior to May 1743, when, upon the death of Bishop Rattray, the clergy of Dunkeld elected Mr John Alexander, presbyter at Alloa, to succeed him in the Episcopal office. After Bishop Alexander, succeeded Mr Alexander Cruickshanks, who was about fifteen years

* Exclusive of the collections for the poor.

in that charge here ; whence he was translated to Muthil, where he died, leaving an excellent character. He was succeeded by Mr Rhind, who died in 1806. The congregation, then, had the service of the Episcopal church performed for some years (having no minister) by the Rev. Dr Russell, now Bishop of Glasgow, and some others. The first minister subsequently settled amongst them was the Rev. John Hunter in 1837, who is the present incumbent.

Education.—In the town of Alloa, there are ten schools, including the parish school and the academy. The parish school-master has the maximum salary, L. 34, 4s. 4½d., with an allowance of L. 16 per annum in lieu of house and garden ; which sum, now that rents have risen so exorbitantly high, is insufficient to procure him such accommodation as is enjoyed by his brethren in any of the neighbouring parishes. The school fees may amount to about L.25 per annum. The branches taught are, English reading, at 3s. per quarter ; with writing and English grammar, 4s. ; with arithmetic, 5s. ; any or all of these with Latin, 7s. 6d. ; with French, Greek, or Italian, 10s. 6d. ; also practical mathematics, geography, book-keeping, or navigation, 10s. 6d. per quarter ; or L. 1, 1s. each, per course. At Alloa Academy, which was erected by subscription in 1824, the branches taught by the present rector, Mr Bruce, are, English reading, English grammar, writing, arithmetic, book-keeping, geography, Latin, Greek, French, Algebra ; the various departments of practical and theoretical mathematics, including the higher departments of analytical geometry, trigonometry, and theoretical mechanics. The fees vary from 5s. to 11s. 6d. per quarter ; 2s. of which, for each pupil, goes to the support of an assistant teacher. There is an annual subscription to pay the feu-duty, and defray the expense of repairs ; and for a considerable time also a small sum was paid as a salary to the teacher ; but this is not permanent. There are three other schools in the villages, viz. the Colliery school, one at Tullibody, and one at Cambus, Connected with the colliery is an excellent school-house, built in 1819, at the sole expense of the late John Francis Earl of Mar. At last examination, it was attended by 180 scholars. The teacher has a salary of about L.21, varying with the *flars*, arising from a bequest of the late lady Charlotte Erskine ; besides an allowance in money from the colliery fund ; a very good dwelling-house and garden, and free coals. He has also a piece of ground, for only a small portion of which he has to pay any rent, as upwards of an acre of it is freely appropriated to his use, through the liberality

of the present coal company. He teaches a Sabbath school, the scholars attending which vary from upwards of 50 to 80.

Lord Abercromby gives a school-house, dwelling-house, and garden, with an acre of land, and a salary of about L. 6 per annum, to the schoolmaster of Tullibody. In the town, there are two charity schools, at which 140 children are taught English reading gratuitously, and writing on paying a penny a week. One of them is supported entirely by public subscription; the other by the same means, and by the interest of L. 300, bequeathed for that purpose, by the late Lady Charlotte Erskine. There is a boarding-school for young ladies in the town; and three other day-schools conducted by females, where the usual branches are taught, besides plain and ornamental needle-work. The number of pupils attending all the day-schools in the parish in March last was 1004; at evening schools 120; and at ten Sabbath schools, the number now attending is 766. An Infant School on a large scale is about to be erected in the town, the greater part of the money necessary for the purpose being already subscribed.

The number of the young between six and fifteen years of age who cannot read or write, it is impossible to ascertain; but it is not supposed, that there are any persons natives of this parish upwards of fifteen years of age, who cannot read, and probably not a great number, except old people, who cannot also write. The people, in general, appear alive to the benefits of education; and it is believed that they are improving in morals and religion.

Literature.—The Clackmannanshire Library was founded at Alloa in the year 1797, and now contains upwards of 1500 volumes, which have been judiciously selected. Its only source of increase is an annual subscription of 10s. from each subscriber. There are two libraries in connection with the United Secession Congregations, and one in connection with the Established Church, lately founded by the Countess of Mar and Kellie, one in connection with the East Church parish, founded by Mr Wright some years ago; the books in all of which are chiefly of a religious nature.* A library of suitable books was established several years ago, and is supported solely by the present teacher of the parish school, without any contribution even from his scholars.

There are two public reading rooms in the town, both frequent-

* There is a library in connection with the New Jerusalem Church Society, containing all the theological works of Emanuel Swedenborg, and several other books explaining and recommending the doctrines held by that body of Christians.

ed by the higher classes. There are four booksellers' and stationers' shops in the town, and three printing-presses. No newspaper or other periodical has yet been published here.

Mechanics' Institution.—An institution of this kind was formed in 1826, when it commenced with a course of lectures by the late Mr John Steel ; since which time different courses of lectures have been given by Messrs Wylie, and Gray, Dr John Murray, and other eminent persons, some of whom gave gratuitous lectures in different seasons. It was carried on with considerable spirit for many years, but does not now receive that support from the superior classes, which is necessary to insure its success. The library connected with it consists of 470 volumes of valuable books chiefly of a scientific nature.

Shakspeare Club.—This far-famed literary Club was formed by a native of this parish, who is distinguished for literary taste, in the year 1804, and prior to that even in the poet's birth-place ; and at the different anniversaries, it has occasionally been visited by several distinguished poets, and other literary characters, honorary members of the club. The late Mr Hogg's beautiful Ode to the Genius of Shakspeare was written for the anniversary of 1815.

Friendly Societies.—The Alloa Friendly Society, instituted in 1823, has for its object the supporting of its members, when they are unable to work, either from disease or accident. The number of members at present is 112. The yearly expenditure averages L. 30, which is raised by a small weekly contribution from the members. A similar Society exists among the ship-carpenters. The Alloa Friendly Society for funerals was instituted in 1814, and gives an allowance to members and their relations, at the death of a member, or any of his family, in the name of funeral money. The expenditure for twenty years preceding July 1834 was L. 1377, 10s. The funds are raised by each member paying 1s. when a death occurs in the Society. These Societies have obviously been of advantage to the members, by supporting many who might otherwise have fallen into abject poverty. Some other similar Societies formerly existed, but are now extinct.

There is now no savings' bank in the parish, although one seems to be very much wanted.

Poor and Parochial Funds.—During the last fifty years, the number of paupers on the poor's roll has considerably increased. The number taken on an average of fifteen years preceding 1790, was 111 on the regular roll, and 36 on the temporary list. The

average annual allowance to each individual on the regular roll for the same period, was L. 1, 14s. 6½d. In the year 1839, there were 235 on the regular roll, receiving an allowance of L. 1, 10s. 0½d. each, and 99 temporary. The causes of this great increase are various, but we presume the chief of them are,—the increase of the population since the former period, the great increase of manufactures in the parish, and the increasing improvidence of the working-classes, arising in a great measure from their intemperate habits. The amount of contributions for the relief of the poor in 1839 is as follows :—

Voluntary contributions by the heritors,	-	L. 140	6	4	
inhabitants of the parish,	196	0	9		
				L. 336	7 1
Collections at church-doors,	-	-	-	174	9 2½
Bell-money, mortcloth, &c.	-	-	-	45	10 11
Donations from Dissenting congregations,	-	-	-	29	0 0
				L. 585	7 2½

Besides what is stated in the preceding account, the heritors pay for the maintenance of several pauper lunatics in the Glasgow Asylum, the expense of which, during 1838, was L. 130, 15s. 4d.; in 1839, L. 91, 8s. 8d.

A committee of the inhabitants, ever since 1770, have acted in concert with the heritors and session; the ministers of the other congregations, who contribute to the funds, being members *ex officio*. This plan has been found of much benefit, both to the funds and to the paupers maintained by them. In 1839, the committee was enlarged, and their mode of operation much improved. By their united exertions, the poor have hitherto been supported without having recourse to a compulsory assessment; how long that may continue, cannot be predicted. One principal object of the committee is to induce the inhabitants to be more liberal in their voluntary contributions, that all may contribute according to their means and substance, so long as they have it in their power, and thereby prevent a legal assessment; another, is to limit public begging as much as possible, and to make some addition to the allowance of the most necessitous and sober of the poor; for it is notorious that a few of them do pass the bounds of sobriety, whenever they have it in their power.

The committee of management are materially aided by the praiseworthy exertions of the "Alloa Female Society for the benefit of Old and Indigent Women," the ladies composing which generally distribute above L. 70 annually. In 1839, they gave to deserving objects, L. 78; and they also distribute comfortable cloth-

ing to the amount of from L. 12 to L. 15 per annum. In the year 1829, a friend to this institution sent, anonymously, L. 250, as a donation in aid of the funds of this excellent charity, the interest of which is intended to be always at the disposal of the Society.

There are now few persons who reckon it any degradation to receive parochial aid; and some able-bodied young men, who are apparently in circumstances to enable them to assist their aged parents, allow them, without scruple, to be supported from the parish funds.

Prisons.—The only place of confinement for prisoners in the parish, is the old jail of Alloa, in a room of which the Sheriff-courts were formerly held; it is now termed the lock-up-house,—the jail of Stirling being at present that of Clackmannanshire.

Fairs.—Four fairs are held on the second Wednesdays of February, May, August, and November. At three of these cattle are sold; but the fairs are little more than nominal. That held in August is the great fair, where servants are hired, and reapers for the harvest: it is attended by immense multitudes of people from all the surrounding district.

Inns, &c.—In the town of Alloa are five hotels and inns, at four of which chaises and other carriages are let out for hire; 27 taverns, and 30 grocers' shops, where spirituous liquors are sold. There are also 11 taverns or public-houses in the villages; making a total number of no less than 72, which are more than the necessities of the people require.

Fuel.—Coal, the only fuel made use of in the parish is obtained in the immediate neighbourhood; and a constant supply for the town is kept at the coal-fold, for household purposes, so low at present as 4s. 6d. per ton, owing to the generally depressed state of the coal trade along the river Forth.

Drawn up December 1840.

Revised September 1841.

PARISH OF TILlicoulTRY.

PRESBYTERY OF DUNBLANE, SYNOD OF PERTH AND
STIRLING.

THE REV. HENRY ANDERSON, MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name and Boundaries.—THE name of this parish is, by some, considered of Gaelic origin, and derived from *Tullich-cut-tir*, signifying *the mount or hill at the back of the country*, as descriptive of the rising ground, called Kirk-hill, and Cunninghar, running across the vale, in a south-east direction, from the bottom of the Ochils, near Tillicoultry House, to the Devon. This mount or hill, viewed from the west, appears as the termination of the valley, which stretches along the foot of the hills, from Abbey-Craig, near Stirling, to Dollar.

The writer of the former Statistical Account considered the name Tillicoultry as of Latin etymology, derived from *Tellus culta*, referring to the introduction of Italian agriculture, or from *Tellus cultorum Dei*, as indicating a place of Culdee, or of Druidical worship,—the old church having stood on the northern extremity, and the remains of a Druidical circle being still visible on the south end of the Cunninghar.

The figure of the whole parish, including the hills, is an oblong, the two longest sides, which are on the east and west, measuring, each, nearly 6 English miles, the south side $2\frac{1}{2}$ miles, and the north side one mile. The low grounds taken alone form, also, an oblong, the length of the sides, from east to west, being more than $2\frac{1}{2}$ miles, and the breadth from south to north about $1\frac{1}{2}$ mile. It is bounded on the east, by Dollar; on the west, by Alva and Clackmannan; on the south, by Clackmannan; and on the north, by Blackford.

Topographical Appearances.—The surface of the parish is much diversified,—two-thirds, or about 4000 Scotch acres, being in the hills and glens, and the remaining 2000 forming a beautiful plain,

sloping southwards, from the bottom of the hills to the banks beyond the Devon; and then a ridge of rising ground, which runs parallel with the hills.

The front hills are, in some places, bold and romantic; but, in most places, in summer are covered with a beautiful verdure, affording fine pasturage for sheep, as also the back hills, and the deep winding vales that intervene.

There are two aspects of the Ochils strikingly grand, from the number and position of their burns and their glens. The one may be observed in the summer months, when the shade of night sits dark on the mountain's side, contrasting with the clear blue northern sky, seen through the openings, or glens, which, at distances, not irregular, appear as so many embrasures in the wall of a fortification; the other is exhibited in winter, when the snow-clad range has its dazzling whiteness relieved by the dark and deep-worn bed of each tributary rill that hastens to pour its contents into the Devon below.

From Bencleuch, the highest of the Ochils, which is 2300 feet above the level of the Forth, there is an extensive prospect in every direction, including the Grampian mountains, the Dundaff, the Lomond, and Pentland hills.

Hydrography.—There are many fine springs in the hills, which, collected in the declivities, form these beautiful burns intersecting the mountain and plain, at once so useful and ornamental in this part of the country. One of these burns, which forms the boundary with Alva on the west, is beautifully adorned with wood, and has some fine cascades; another, which is wooded on both sides, is the boundary with Dollar on the east; and the gardens of Harviestoun and Tillicoultry have each their mountain-stream murmuring o'er its pebbled-bed, beautifying and fertilizing all around. The largest of these rivulets is the burn of Tillicoultry, formed by the confluence of Gloomingside burn, and Daiglen, two nearly equal streams, which rise in the middle range, and the water of which, after forming many a deep pool, well known to the angler, and dashing impetuous over many a rock, is made, by the art and industry of man, to turn the machinery of eight large woollen factories.

But the Devon, celebrated by tourists and poets, is the most remarkable stream in the parish, which, rising in the hill behind Alva, runs in an easterly direction, on the north side of Tillicoul-

try, and through Dollar, Glendevon, and Muckart, thence issuing south into the vale, it takes a westerly course at the Crook of Devon, passes the church and manse of Fossaway, and, two or three miles below, it forms that wonderful group of rocks, waterfalls, &c. about the Rumbling Bridge and the Caldron Linn. Increasing in size, as it flows westwards, from the contents of many tributary streams, it was wont, in former times, frequently to overflow its banks, carrying along with it hay, corn, &c. but this is now, in some measure, prevented by embankments raised in places most exposed to inundation. A little below the bridge, on the south bank, it supplies the manufacturers at Devonside with water for their steam-engines, and other purposes; and, winding along the north side of Glenfoot, it leaves Tillicoultry, passes through Alva and part of Logie, and falls into the Forth near Cambus, almost due south from its source in the hills.

Geology and Mineralogy.—The rocks in this parish belong to the trap, porphyry, and coal formations. Over these occur deposits of a diluvial and alluvial nature. The trap formation consists of greenstone, amygdaloid, &c. and the porphyry of porphyry, compact felspar, tufa, &c. The quarries in the Mill-glen have been wrought for some time, and afford excellent whinstone or trap for building and road-metal. There is abundance of sandstone in the parish, of various colours,—reddish, straw-coloured, and white, which greatly facilitates the increase of building, and is of considerable value to the proprietors. The stone of which Harvies-toun House is built, was found on the estate, and, about thirty-five years ago, a large quantity of flagstone was wrought on Balharty, on the south-east side of the parish. The hills of Tillicoultry are thought to contain various precious minerals, as iron, copper, silver, lead, and cobalt. About a century ago, some of these were wrought to a considerable extent, in the Mill-glen, above the village of Tillicoultry, and there are still remaining the ruins of a large house, occupied by the miners, on the front of the hill, west side of the burn. About fifty men were employed for several years, by a company in London; and, although four different kinds of copper were discovered, the thickest vein of which was about 18 inches, and the ore, when washed and dressed, was worth L. 50 Sterling per ton, the works were abandoned as not defraying the expense.

The ironstone, however, has proved a more lucrative concern. It is found under the hills, as well as south from the Devon, and

was partially wrought, about forty years ago, by the Carron Company, and more extensively since by the Devon Company. On the west side of the parish, it runs in strata, from two to five inches in thickness, and on the east side, it lies in bands, or promiscuously among the blaes. The latter is of a kidney shape, and fine quality, said to yield from 20 to 30 per cent.

There is abundance of coal in the parish, of various and excellent quality; some seams of which were found under the hills, when the ironstone was wrought, and also at Harviestoun, when the sandstone quarry was wrought; but, there being four excellent seams on the south side of the river, which have been partially wrought, the proprietors do not wish to have coal wrought on the north side. The only coal that has been wrought to any extent in the parish is Colснаughton. It is at present wrought on Woodlands, and at Devonside, by Robert Bald, Esq. It dips to the north-west, and crops out to the south-east. The Craw-seam is about 3 feet thick, a rough cherry coal, about 17 fathoms from the surface. The 5 feet seam at present wrought is of very fine quality, being all cherry coal, except about 5 or 6 inches in the roof, and is 9 fathoms below the Craw-seam. The splint coal, which is nearly 3 feet thick, is 6 fathoms below the 5 feet seam, and the main coal, which is a strong coal, a mixture of rough and splint, 6 feet thick, is 14 fathoms below the splint seam. There are no coals sent to Alloa to be exported, although there is now a good turnpike-road, as there is a great demand from the country round, and from the north side of the hills, to which large quantities are driven, by the Yetts of Muckart.

The soil is various, in some places a rich loam, in others it is sandy or gravelly, and there is a considerable extent of moss on the hills, about 7 feet deep, which the heavy rains are, from time to time, removing to the Devon, or the holms below. There are also some pieces of moss on both sides of the river, in which oak is found, black as ebony, and in a high state of preservation, as also hazel-nuts.

Zoology.—Under this head there is nothing peculiar to the parish. But it may be noticed that there are three species of the feathered race, once well known here, but now seldom, or never seen in Tillicoultry. The snipe and the goldfinch, which, thirty years ago, were inmates of the manse garden, are never seen in the parish now, so far as the writer knows; the former evidently banished by the draining of the bogs and marshes, and the latter

gone to some less cultivated district, where its favourite thistle abounds. The glede, once an every day object, is never seen in this part of the country, but, whether from the want of its proper food, or from the great increase of rookeries, is uncertain.

The roe is occasionally seen in the neighbouring plantations.

Botany.—There are several fine thriving plantations on the north side of Devon, on the estates of Alva, Tillicoultry, and Harviestoun, which, being laid out with taste, are at once ornamental and valuable. The oak, the elm, the ash, the beech, and the plane, the birch, the larch, and the pine are the most common. Near Tillicoultry House, there are some stately lime trees, and several very large and aged chestnuts, which, in a good year, bear excellent fruit. There are also very thriving plantations on the south side of Devon on the estates of Harviestoun, Tillicoultry, Shannock-hill, and Glenfoot.

Of cryptogamous plants, there is great variety, particularly the Filices and Musci. The phanerogamous found in the neighbouring parishes are also common here, as the *Digitalis*, *Viola*, *Glechoma hederacea*, *Primula veris*, *Tussilago*, *Leontodon*, *Saxifraga granulata*, *Calendula*, *Oxalis*, *Atropa Belladonna*, *Agrostis*, *Trifolium*, &c. There is a beautiful species of the *Arundo* on the banks of the Devon; the *Acetosa* abounds in the woods, and the *Serpyllum* in the hills.

II.—CIVIL HISTORY.

About six hundred years ago, the estate of Tillicoultry was the property of the family of Mar; and an original charter, granted by King Alexander III. of Scotland, in the fourteenth year of his reign, was in the possession of the late Mr Erskine of Mar,—a copy of which may be seen in the former Statistical Account of this parish. Since the beginning of the seventeenth century, and in less than two hundred years, it has been sold ten times, and in the possession of eleven different families. It was in the family of Lord Colvil of Culross from 1483 to 1634, when it was sold to William Alexander of Menstrie, afterwards Earl of Stirling, the distinguished poet. It was purchased by Sir Alexander Rollo of Duncrub, in the year 1644; by Mr John Nicolson of Carnock, Stirlingshire, in 1659; by Lord Tillicoultry, one of the Senators of the College of Justice, and a baronet in 1701; by the Honourable Charles Barclay Maitland, of the family of Lauderdale, in 1756; by James Bruce, Esq. of Kinross, in 1780; by Duncan Glassford Esq. in 1806; by James Erskine, Esq. in 1810; by R. Downie,

Esq. in 1813; and by R. Wardlaw, Esq. in 1814. About four years ago, part of Tillicoultry estate, including the mansion-house, was sold to the late Patrick Stirling, Esq. which was bought in 1840 by the present proprietor.

Land-owners.—The proprietors of the parish are, J. Anstruther, Esq. of Tillicoultry; the Globe Insurance Company, Harviestoun; R. Wardlay Ramsay, Esq. of Whitehill; James Johnstone, Esq. of Alva; the Earl of Mansfield; Mr Harrower of Shannock-hill; Mr Blair of Glenfoot; and Mr Ritchie of Cairntown.

Parochial Registers.—The earliest register of discipline is dated 1640; of baptism, January 1640; of proclamation, November 1752; of burial, October 1753. They have been kept with various degrees of accuracy; and many parents have neglected to register the names of their children. The Devon Company having, many years ago, purchased ground in the church-yard, there are many persons from Clackmannan parish buried here.

Antiquities.—The remains of a fort or building on the Castle Craig, above the village, and the Druidical circle are mentioned in the former Statistical Account. About twenty years ago, a small axe, apparently of brass, was found in a bed of sand, at the south end of the mound on which the Druids circle stands.

In 1796, when digging a drain behind Harviestoun House, a sword was found; and in 1802, when making the west approach to Harviestoun, an urn; both of which are now in the possession of John Tait, Esq. Sheriff of Clackmannanshire. The sword is iron, but totally oxidized. It appears to have been double-edged, and is perfectly straight. It is 31 inches long, including the handle, which is remarkably small, not large enough for an ordinary-sized man's hand. There is no basket at the handle, but a small narrow piece of iron, curved outward in a semicircular form, at each extremity, one of which serves as a guard, separating it from the blade. It is thought to be Roman, as the Romans were certainly in this part of the country, and as it resembles some of the swords used by them. The urn is about five inches in height, and about the same width, formed of clay, baked, or perhaps dried in the sun. It has a rude waved pattern on the outside, as if it had been formed by a mould of plaited rushes. Inside, there was some dust or ashes, and a flat flint, about two inches long, and an inch broad, sharpened all round, except at the bottom, which may have been the head of an arrow or spear. It was found enclosed in a sort of rude

stone-coffin, composed of flat stones not fastened together ; and altogether, it gives the idea of very remote antiquity.

Modern Buildings.—Tillicoultry House and Harviestoun are both elegant mansions, built about thirty-five and thirty-seven years ago ; the church, erected in 1828, is at once beautiful and commodious, and the meeting-house is a goodly building.

There are several large and well-built mills, lately erected for the woollen manufacture ; and the dwelling-houses in the villages are many of them handsome and comfortable. The Edinburgh and Leith Bank and dwelling-house are especially so.

III.—POPULATION.

In 1755, the amount of population was	787
1782,	853
1793,	909
1806,	1050
1821,	1160
1831,	1472
1837,	1803
1841, amount last census,	3213

The great increase of population which has taken place, of late years, is chiefly owing to the rapid increase of manufactures in the shawl trade, tartans, and other branches ; and many of the hands employed being strangers, who are not stationary, any general remarks on the character and habits of the people would of course be applicable only to the individuals. I believe, however, it is generally admitted, that Tillicoultry shawls and tartans are now as much in request, by skilled merchants, as the well known serge was in former times.

The principal heritors do not at present reside in the parish. There are eight heritors possessing more than L.50 of annual rent.

IV.—INDUSTRY.

Agriculture.—As a considerable part of the parish is well adapted to the purposes of husbandry, the most improved methods of farming have been used, draining has been general, in both sides of the Devon, chiefly with stone, but in several instances, also with tile. The lands are generally well fenced, either with stone fences or hedges, and the latter are neatly dressed. The four-shift rotation is chiefly practised, but in some cases the five-shift mode is used, viz. oats, green crop, barley with grass seeds, and hay : or oats, green crop, barley or wheat,—hay, the second crop, being pastured, and pasture. The rent of land, on the north side of Devon, is from L. 3 to L. 4 per acre, and some fields have been let at higher rates. On the south side, rent varies as the quality of land,

from L. 1 to L. 2. As many fields are let to the villagers, and cropped so as to suit the convenience of their families, and many also are let yearly for pasturage, it is difficult to get a correct statement of the value of the gross produce. The present rental of the parish is L.5273, 16s. 6d.

Labourers' wages are from 1s. 6d. to 2s. per day, for men; and from 10d. to 1s. for women. Farm male-servants have from L. 20 to L. 25; and females, from L. 5 to L. 8 per annum.

Manufactures.—The manufacture of Scotch blankets and Tillicountry serge has long been carried on with advantage in this parish; but within the last twenty years, the manufacture of shawls and tartans has been found more lucrative; and such is the demand for these articles, from Glasgow and other places, for exportation, that the old establishments have been enlarged, and several new ones erected. There are about 300 men, 120 women, and 140 children employed in these factories, besides those employed at home, and a considerable number by the small manufacturers, many of whom have from one to four looms. The rate of men's wages, is from 2s. 2d. to 3s. 4d.; of women's, from 10d. to 1s. 6d.; and of children's from 6d. to 8d. per day.

The quantity of wool annually used by the principal manufacturers is stated to be about 30,000 stones; the price of the wool, from 1s. to 2s. per lb. The hours of labour are from six o'clock in the morning to seven in the evening, during which they have one hour for breakfast, and one for dinner. On Saturday the mills are shut at five o'clock. The persons employed in the factories are generally healthy, and the labour in which they are engaged does not seem to impair either the bodily vigour, or mental energy of the children, although there is no doubt that their being able so early to earn wages, has an influence, not very favourable, on their education and their habits in after life.

V.—PAROCHIAL ECONOMY.

Market-Town.—The nearest market-town is Alloa, about four miles distant. The distance from Stirling is nine miles. The parish, however, is well supplied with the necessaries of life, there being three bakers, three fleshers, and several grocers in Tillicountry. There are two villages in the parish, Tillicountry and Coalsnaughton, both extending rapidly, and another has sprung up within these few years, at Devonside, where a brick and tile-work has lately been erected. There is a surgeon in Tillicountry, an increasing number of smiths, wrights, and masons, and an extensive

work for making machinery. There is a post-office, and a post daily passes between Alloa and Muckart.

The public roads to Alloa, Stirling, and Kinross, are all good, and the materials for keeping them in repair are abundant, and of excellent quality. The bridge over Devon, which formerly was narrow and uncomfortable, was widened about twenty years ago, and is now spacious and secure. There is a wooden bridge for foot-passengers, below the village of Tillicoultry.

Ecclesiastical State.—An elegant church, which does honour to the liberality of the heritors, was built in 1828. It contains 650, and is conveniently situated near the centre of the parish, and at no great distance from the villages. About three-fourths of the population belong to the Established Church; the rest are connected with the United Secession meeting-house in the village, the Relief, the Original Seceders, the Episcopalians, or the Unitarians. There are many who are regular and exemplary in attending Divine ordinances, although there is reason to lament that too many seem to consider the Sabbath as merely a day of cessation from labour, and spend it just as inclination or companionship may dictate.

The manse, erected in 1811, is good, and the offices are commodious. The glebe is about 13 acres. The minister is understood to have a right to pasturage in the hills, which the present incumbent has never enjoyed. The stipend is 15 chalders, half meal half barley, with L. 8, 6s. 8d. for communion elements.

Education.—Besides the parish-school, which is not well attended, there are two subscription schools in Tillicoultry, one taught by a member of the Established Church, the other by a Dissenter. There is also an academy taught by the Rev. Mr Browning. There is a school in Coalsnaughton, connected with the Church, built by Mr Wardlaw Ramsay. The parochial school-master's salary is L.25, 13s. 3½d. The subscription school in Tillicoultry connected with the Church has a salary of L. 8, paid by Mr Ramsay and Mr Johnstone of Alva, besides the school-fees; and the school in Coalsnaughton has a salary of L. 5, paid by Mr Ramsay, with house and garden, besides the school-fees. There is a small library attached to this school. The people generally are sensible of the advantages of education.

The children employed in the factories attend evening-schools in both villages. A Sabbath evening-school was taught in the

church by the minister for many years, and the schoolmasters in the villages continue to teach Sabbath evening-schools.

Poor and Parochial Funds.—The poor are well provided for in this parish, as besides an aliment, many of them have house-rents paid, and frequent occasional supplies. The number permanently on the roll, is from 15 to 18, who receive from 2s. 6d. to 6s. per month. There are also from 5 to 8, who occasionally get assistance for clothes, fire, &c.—liberal donations being given for these purposes in winter by the families of Tillicoultry and Alva. There have been two or three lunatics, or persons in a state of mental imbecility, supported by the parish, at great expense, for some years. Besides the collections at the church-door, averaging for 1835, 1836, and 1837, L. 26, 11s. 10½d.; mortcloth dues, &c. from L. 2 to L. 3; and the interest of L. 203 at 5 per cent; the heritors, for some years past, have found it necessary to assess themselves to defray the above heavy expenditure.

Inns and Public-Houses.—There are ten public-houses in the parish; and there is no doubt that our Saturday evenings would be more quiet and our Sabbaths more solemn, were fewer opportunities afforded the thoughtless and the dissipated of injuring their health and morals, and exposing themselves to all the evils which drunkenness entails.

Fuel.—Abundance of excellent coal may be had, at no great distance from any of the villages, from 4s. 6d. to 6s. per ton, according to the season and the demand.

September 1841.

PARISH OF DOLLAR.

PRESBYTERY OF STIRLING, SYNOD OF PERTH AND STIRLING.

THE REV. A. MYLNE, D. D. MINISTER.

I.—TOPOGRAPHY AND NATURAL HISTORY.

Name.—THERE can be little doubt that the name Dollar is of Gaelic origin; but there is some difficulty in ascertaining what is the meaning of the word in that language. Some say that the name is derived from *Dal*, a valley, and *ard*, a hill or lofty ground. But these terms scarcely apply to Dollar. Some derive the name from the Gaelic word, *Doilleir*, which signifies *dark*, *sombre*, or *gloomy*. *

Extent and Boundaries.—The parish of Dollar is about a mile and a quarter in length from east to west. The breadth from north to south is considerably greater, being about three miles; but as the boundary to the north extends far into the Ochills, where there is no population, its breadth from the southern foot of the Ochills to the boundary line of the parish of Clackmannan, scarcely exceeds a mile and a-half. The breadth of the parish is, however, considerably enlarged by a piece of angular ground, almost detached from the rest of the parish in the south-east, called the Seik and Well-hall, near to Blair-ingone. The same thing occurs in the north-east of the parish, where Hill-foot and its farmsteadings form also a detached corner. The boundary of the parish on the east is well defined by Kelly-burn, which separates it from Muckhart. The northern boundary is in the centre of the Ochills adjoining the parish of Blackford.

In the northern extremity of the parish, about two miles above

* This opinion is founded on the following well known tradition: It is said, a daughter of one of the Kings of Scotland (who then resided at Dunfermline, a royal seat in the neighbourhood of Dollar) was, as a punishment for some improper conduct, immured in the cells of the royal fort, now called Castle Campbell; and that while confined there, she gave names to certain places and streams adjoining the castle, corresponding to the depressed state of her mind at the time. The place of her confinement she called Castle Gloom. The hill on the east of the castle she called Gloom hill, which name it still retains. To the two streamlets which glide by on the east and west sides of the knoll on which the Castle is built, she gave the names of the burns of *Care* and *Sorrow*.

Castle Campbell, there is a large moss called Maddie moss. Its area exceeds 120 Scots acres. It is very retentive of water, and occasionally bursts its barrier, and flows down in a muddy torrent to the Devon, by the stream on the west of the castle. The western boundary on the side of Tillicoultry is clearly marked (at least on the north side of the Devon) by a burn which descends from the Ochills, and crosses the turnpike road about a twelfth of a mile or less from the first mile-stone on the road from Dollar to Alloa. The boundary on the south is not well defined; but the road from Blair-ingone to Alloa is pretty nearly the boundary, and separates the parish from Clackmannan. At Melloch, however, there are a few houses in Dollar parish on the south of this road, belonging to Mr Erskine, the boundary being in his wood of Aberdona, which cuts off from Clackmannan, a small portion of his property, which lies chiefly in the latter parish.

Hills.—The only hills connected with the parish of Dollar are the Ochills, an extensive range which runs nearly in the direction of west to east from the parish of Logie; forming a barrier on the north to the parishes of Alva, Tillicoultry, Dollar, and Muckhart, and continuing in the same line to the centre of Fife. The hill on the western extremity is called Damielt, from which there is a most magnificent view of all the country around, more especially of Stirling, Alloa, Linlithgow, Falkirk, the kerse of Stirling, and as far as the centre of Lanarkshire,—together with the splendid range of mountains extending from near Perth on the east, to the banks of Loch Katrine and Loch Lomond, on the west. The highest hill in the Ochills is Benclough, north of Alva, nearly 2400 feet in height. The hills to the east, in Tillicoultry and Dollar, and more especially, in Muckhart and to the east of Muckhart, are of inferior heights. The chief hills which form the barrier of Dollar to the north are King's seat, Dollar hill, and the Wisp, which do not exceed 1800 or 1900 feet in height.

The Ochills, as seen a few miles on the south of Dollar, appear a continuous range, nearly of the same height, and not unlike in form to the Jura mountains which separate Geneva from France. Upon examining the upper ridge narrowly, certain notches or depressions are seen, which indicate the place where streams are formed on the upper part of the hills which descend to the plains below, increasing in size, and passing through romantic glens of great variety and beauty. The most remarkable are the burns of Dollar, Alva, and Tillicoultry, the two last of which furnish a sup-

ply of water for the shawl and blanket mills of these thriving villages.

The Ochills have been much admired for the lights and shadows that appear on their surface. This is particularly noticed by those who live on the south side of the Forth. And there can be no doubt, it arises from the particular slope of the hills, which is nearly an angle of 45, so that every cloud which passes over the sun has its shadow reflected on the green surface of the Ochills. If the inclination of the hills were more perpendicular, the shadows would not be seen by those who live on the opposite side of the Forth, and if the inclination were more horizontal, they would fall unobserved by them on the ground.

The greater part of the parish of Dollar consists of a valley or low grounds between the foot of the Ochills and a gently sloping eminence on the south of the Devon. The breadth of the valley may be about one mile or less, and it is nearly level; but in the north-east portion of the valley, the ground begins to rise, and continues to rise to Hillfoot, in the north-eastern corner of the parish. The old village of Dollar, as it is now called, is situated at the commencement of this rising ground, and presents a most picturesque appearance when viewed from Sheardale or the rising ground in the parish on the south of the Devon.

The Devon glides, with many windings, through the valley; but as it keeps near the high land on the south, it is not seen to advantage from the grounds immediately above it. The height of the Devon at Dollar above the level of the sea must be quite inconsiderable,—from the circumstance, that a canal was several years ago seriously proposed to be made to join Dollar and Cambus, (where the Devon enters the Forth,) but it was abandoned, whether from want of means to carry on the work, or a difference among proprietors through whose lands it was to pass, is not known. It would have been of great advantage to Dollar and the neighbouring parishes, by furnishing a ready mode of conveyance for their farm and other produce,—although it might have interfered with the picturesque effect of the “clear winding Devon.”

There is a remarkable fissure in the front of Castle Campbell. Whether it is a natural or artificial opening, is not well ascertained. The general opinion is, that it was a passage cut out of the rock to carry water in the event of a siege, from the rivulet below; but it is more probably the work of some natural convulsion,—though it may have been improved by artificial means. It is said

there were steps cut in the rock, forming the bottom of the fissure, all the way down to the rivulet. But it is difficult to ascertain the truth of this statement, as it is now completely covered with loose earth, several feet in thickness. The fissure is dark and gloomy, and the descent is very steep and difficult, and is rarely attempted. It is above 100 feet from top to bottom, and the breadth is about six feet. The sides are perpendicular, which gives it very much the appearance of an artificial cut. It is usually called *Kemp's score* or cut.

Meteorology.—The temperature of the atmosphere and its pressure, also the quantity of rain that falls in a year, are exhibited in the following table, which contains the monthly average result of observations made on the barometer and thermometer every day, morning and evening, for one year, viz. from October 1839, to October 1840; also the monthly average result of observations made with a rain-gauge regularly kept.

	Barometer.		Thermometer.		Rain-gauge.	
	9½ A. M.	8¼ P. M.	9½ A. M.	8¼ P. M.	Minimum.	Inches.
Oct. 1839	29.84	29.87	47½	45½	42	4.05
Nov.	29.47	29.46½	42	41½	38½	3.75
Dec.	29.40	29.39	37	37	33½	5.37
Jan. 1840	29.31	29.30½	37	37½	34	9.45
Feb.	29.64	29.65	36½	36½	33½	3.84
March	30.13	30.11	40	39	31	0.31
April	29.86	29.87	49½	44½	40	0.72
May	29.71	29.71	50	47½	42	3.74
June	29.65	29.66	56	50½	48	2.44
July	29.57	29.59	57½	54	49½	4.79
Aug.	29.67½	29.68	59	57	51	3.19
Sept.	29.46	29.50	52	48	44	4.36
						46.01

The following is a statement of the quantity of rain that fell in Dollar, from March to March following, viz. from 1836 to 1837 = 47 inches and 77 hundred parts; from 1837 to 1838 = 36. 30 inches; from 1838 to 1839 = 49.92 inches; from 1839 to 1840 = 49.46 inches.

The hottest day of the year 1836, was the 15th of June, 66° at 9½ A. M.; the coldest night, 11th January following, 13°. The hottest day in 1837 was the 11th July, 70° at 9½ A. M.; and the coldest nights, 19th January and 14th February following, viz. 7°. The hottest days in 1838 was the 5th and 6th July, viz. 69½° at 9½ A. M.; and the coldest nights, the 6th and 30th January following, viz. 15°. The hottest day in 1839 was the 18th June, viz. 70½° at 9½ A. M.; and the coldest night, 30th January following, viz. 19°.

Climate.—The climate has a decided tendency to moisture; owing, no doubt, to the immediate vicinity of the Ochill hills.

The parish is remarkably healthy. The only disease which may be considered as peculiar to Dollar, is the glandular swelling of the neck, called bronchocele—obviously occasioned by drinking the water of Dollar Burn, which is impregnated, for more than half the year, with melted snow from the Ochills.

Hydrography.—There is a spring or rather drippings from the rocks at the Vicar's bridge, (so called from its having been built by Thomas Forrest, Vicar of Dollar, to be afterwards mentioned,) in the parish of Fossaway; but it goes under the name of Dollar Mineral Water. It is reckoned a good breeding stream for salmon, and is powerfully astringent, and comes from a rock of iron-stone. It is said to be very efficacious in healing cuts and bruises of any kind—and has been particularly useful in healing the fleshy wounds of cattle.

The following analysis of this water is by Dr Thomson of Glasgow:—

Sp. Gr. 1.0109.	
In an imperial gallon are the following ingredients:—	
Muriate of soda,	5.87
Sulphate of soda,	170.99
Sulphate of alumina,	953.18
Dipersulphate of iron,	1753.10
Persulphate of iron,	141.55
Silica,	58.70
3083.39 grs.	

Rivers.—The only river in the parish is the Devon or Dovan. It takes its rise among the hills in the parish of Blackford. It flows almost due east from its source, till it reaches the parish of Glendovan. After this, its course is more to the south. At the village which has the appropriate name of Crook of Devon, it takes a sudden turn to the west, flows between the parishes of Fossaway and Muckhart, and then enters Dollar, where it has a very agreeable appearance, and is well entitled to the epithets of “Silver Devon,” “Winding Devon,” which Burns bestowed upon it.* After passing through the parishes of Tillicoultry and Alva, the Devon at last reaches the Cambus, in the parish of Alloa, where it joins the Forth: and it deserves to be noticed, that, after making a circuit of between 30 and 40 miles, it enters the Forth

* It is celebrated in two of the published songs of Burns, which were composed by him, when on a visit at Harviestoun, the residence of Mr Tait, in honour of two ladies, relations of that gentleman, Miss Chalmers, afterwards Mrs Lewis Hay, and Miss Hamilton, afterwards Mrs Adair.

only a few miles south from its source. The Devon, after the sudden turn which it takes westward at the *Crook*, presents, as it flows through the parishes of Fossaway and Muckhart, some scenes of singular beauty. Of these, we may notice the *Deil's Mill*, the *Rumblin'-brig*, and the *Cauldron Linn* or Falls of the Devon, which attract the notice of all travellers for amusement. Its medium breadth is about 100 feet; its depth seldom exceeds two or three feet, except when it forms itself into pools, which are often five or six feet deep, or more. It is subject to considerable inundations after heavy rains among the hills where it takes its rise, or after the sudden melting of new fallen snow. These floods or *spates*, as they are sometimes called, often prove very injurious to the farmers whose lands lie on the borders of the river. The Devon abounds with trout, and also with par below the falls; but, as it is much frequented by anglers, more especially in the neighbourhood of Dollar, fewer fish are found than formerly. The best trouting station is in the parish of Glendovan and higher up. There are no par here, which corroborates the experiments of Mr Shaw, tending to show that par are young salmon in a certain stage, and they cannot ascend beyond the falls. The small streams or burns which descend southward to the Devon from the glens in the hills, abound with trouts of the finest quality, which are often caught in great numbers—more especially after warm showers. The Devon, being but a small stream, is not navigable; but it might easily be made navigable by deepening its bed. A survey of the river was made in 1766 by James Watt, engineer, who reported that its elevation above the Forth at Cambus was trifling, and that it might be made navigable as far up as Dollar, at an expense not exceeding L.2000. But nothing farther was done in the matter.

Mineralogy.—The rocks of this parish consist chiefly of two classes, viz. 1st, Trap rocks, 2^d, Coal formation rocks. The north part of the parish consists of that range of the Ochill mountains which presents to the south a regular line of front running in an east and west direction for a number of miles; this line passes through the parish a little northward from the town of Dollar.

These mountains are composed of trap rocks of various kinds, in thick beds, and very much on edge, the dip being to the south, and the line of bearing from east to west. The great mass is of the amygdaloid class, and clinkstone porphyry, of a light colour. The former abounds with agates, in the cavities of which small quartz crystals are found.

It is, however, particularly to be remarked, that Gloom hill, im-
CLACKMANNAN.

mediately north from the old town of Dollar, is distinctly different from the rocks which compose the great mass of the Ochills, it being that species of trap-rock known by the name of greenstone, and commonly termed blue whinstone, being much more crystalline in its structure than the common trap rocks adjoining.

In the mountains of this parish, as well as in the whole range of the Ochills, there are many veins in which copper and lead are found.

From the face of the Ochills in this parish, the only class of rocks found are those of the coal formation, abounding with valuable beds of coal. These rocks consist of, *1st*, Sandstone of various shades of yellow, grey, and light red; *2d*, Argillaceous schistus, or shale of a dark colour, more or less mixed with sand; *3d*, Argillaceous rock, commonly named fire-clay; *4th*, Argillaceous ironstone in bands and balls, such as is commonly found in the coal-fields of Scotland; *5th*, Mountain limestone.

The beds of coal are of various thickness, as will be afterwards noticed, consisting of cubical coal, splint coal, smithy coal, and anthracite, commonly known by the name of blind-coal.

Below the mountain limestone, the strata of the coal formation continue to a great and unexplored depth, containing many beds of coal, but not workable to profit. Accompanying the coals, there are valuable ironstones, fire-clay, sandstone, and thin beds of limestone.

Although the whole parish south of the Ochills consists of rocks of the coal formation, that part of it which contains beds of coal of a thickness workable to profit is comparatively small.

There are two workable coal-fields in the parish, viz. that of Dollar, next the Ochills, and Sheardale, upon the south side of the river Devon. Each of these viewed as a whole is of an elliptical or oval shape, termed a coal basin; consequently the strata dip in every direction towards the deepest part of the basin; but mining engineers regard the chief or true dip to be northwards, as the strata on the north side of the basins rise at a great angle with the horizon.

These two coal-fields, so far as they contain coals workable to profit, are completely disjoined; but they contain the same beds of coal, and the same accompanying strata.

The Dollar coal-field is the west portion of an elliptical basin, the trough or lowest part of which has its greatest length in a line nearly parallel with the face of the Ochills, the eastern part of which basin is found in continuation across the east boundary of the parish, and terminates in the parish of Muckhart. The greatest length of the basin, measuring from the outburst or crop of the main coal, which is the lowest workable coal above the mountain

limestone, is about 1730 yards, and its greatest breadth, measured from the crops of the same coal, is about 960 yards, of which the breadth from the line of the trough to the south crop is 672 yards, and from the trough to the north crop, is only 288 yards.

The surface of the ground from the mountain foot declines gently towards the river Devon, and forms haughs or holms along both sides of the river. From these holms the ground again rises to the south, forming a steep brow; from the top of which there is a considerable extent of table or flat land reaching to the south side of the parish. In this flat land, is found the Sheardale coal-field already mentioned. The only difference regarding the beds of coal, compared with those of the Dollar coal-field, is that, in the Sheardale coal-field, no smithy coal or anthracite is to be found.

The organic remains found here are the same as are found generally in the coal-fields of Scotland; but no organic remains are found in any of the rocks which compose the Ochills.

In both coal-fields, the following coals have been found above the mountain limestone, the place of section being at Kelly Burn, the east boundary of Dollar parish, and at the deepest part of the trough:

	Rock Strata.		Coals.	
	Fathoms.	Fect.	Fect.	Inches.
Earth or alluvial cover, . . .	3	2		
1. Upper coal rock, . . .	2	3	0	6
Rock strata, . . .	3	5		
2. The crop coal, . . .			1	8
Rock strata, . . .	4	0		
3. Coal, . . .			2	3
Rock strata, . . .	7	3		
4. Rock strata, . . .				
5. The rough coal, . . .			3	0
Rock strata, . . .	2	1		
6. Splint coal, . . .			3	3
Rock strata, . . .	11			
7. Rock strata, . . .				
8. The main coal, . . .			5	0
	34	2	15	8

These coals are a mixture of splint and cubical coal, suitable for household use and furnaces, with the exception of the smithy coal, which is part of the main coal, gradually changing its quality into the smithy or blind coal, as it approaches the mountain rock.

Sandstone has been wrought on both sides of the Devon. The quarry at Sheardale has been wrought to a considerable extent. A good specimen of this rock is seen in the Academy of Dollar. The sandstone on the north-side of the Devon has not been much used for a number of years; but at present it is being quarried at Quarrel-burn quarry, west from the town of Dollar, with a

view to the erection of a new church for the parish : but it is feared it will not answer.

The ironstone found in these coal-fields is of the common argillaceous kinds, and is found in bands and balls imbedded in shale or dark-coloured argillaceous schistus, and yields from 28 to 33 per cent. of cast-iron.

The argillaceous rock or fire-clay is found in the pavement and roof of the coal. It is here of the ordinary quality, such as is common in the coal-fields of Scotland. When made into bricks it is very suitable for lining of furnaces, where there is an intense heat.

The alluvial deposits overlying or covering the rocks in this parish, are of the following kinds :—

Upon the Ochill mountains are found beds of peat, debris of the rocks mixed with sand and gravel, and also what is termed the old alluvial cover.

The cover along the mountain's foot over the coal formation, consists of the angular debris of the Ochills, mixed with sand and loam ; from thence to the river Devon and to the foot of the steep banks on the south side of that river, it consists of gravel, sand, and loam. Few large boulder-stones are to be seen ; those found on the surface at the mountain's foot, are of greenstone. Adjoining the holm-ground, is a very thick bed of brown plastic clay, very suitable for the manufacture of tiles, bricks, and common pottery.

In this clay there are found angular and fantastic forms, of from an inch to three inches in length. They are hard, have a meagre feel, and have a portion of calcareous matter in their composition. These stones have attracted the attention of naturalists, as to the manner in which they have been formed ; but no satisfactory conclusions have been come to. They are collected as curiosities, and they are sometimes used as slate-pens.

All the alluvial cover upon the rising ground, south from the river Devon, is composed of what is termed the old alluvial cover, which abounds very much in the coal districts and uplands of Scotland. It consists of an intimate mixture of clay, sand, small gravel, and boulder-stones of various sizes. It is without beds, is very compact, impervious to water, and difficult to work. It is remarkable that no organic remains, either of the animal or vegetable kingdom, are found in this cover, although the rocks and strata upon which it rests, abound with innumerable petrifications of shells and plants, such as are found in the coal-fields of Scotland. It is a most sterile substance ; for although thrown up and exposed to the weather, it is long before any plant strikes upon it. In thickness it varies

much, being from a fathom to eight fathoms thick, when it has been sunk through; but there is no doubt it is in some places much thicker, as in other places of the county.

The thickness of the beds of gravel in this valley has not been ascertained, and at the foot of the Ochills are great mounds of this substance in these deposits. The boulder-stones are formed of trap rocks, and of hard and soft porphyry, from a small size to several hundred weight.

With regard to the mines which have been wrought or are now working in this parish, those in the Ochills have been given up long ago. Hitherto they have not been successful, and there is no prospect of their being set agoing. These metallic veins yielded both lead and copper.

Mines of coal have been wrought in this parish for a long period of years; but how long it is since coal was first wrought here, is unknown. It is most likely that the first opening would be at Kelly-burn, east from the town of Dollar, as the coals and accompanying strata are there partially cut through by the water. The next operation was to lay dry a breast of coal, by means of a day level, which was commenced in the lands of Pitgober, in Muckhart parish, and was carried forward until it intersected the main coal, splint coal, and rough coals from the points of intersection of the three coals. These coals have been wrought in a water level course, directed to near the Dollar-burn on the west, and to the eastward to the boundary of the parish, and not only so, but in continuation eastward into the Middleton coal-field, in the parish of Muckhart.

After all the coals laid dry by the day level were wrought out, the main coal was fitted or laid dry to the dip north from the present turnpike-road, by means of a water-wheel for raising the water. This pit was $15\frac{1}{2}$ fathoms deep to the main coal, and the water so raised was delivered from the pumps into the day level. By this operation, the main coal was wrought in a water level course direction on both sides of the water-engine pit. The mines to the westward extended to the glebe belonging to the parish church, and to the east they extended into the Middleton coal-field, in the parish of Muckhart.

The next winning or fitting of this coal-field was by means of a steam-engine, upon a pit considerably to the north of the water-mill pit in the lands of Kelly bank, in Muckhart parish. By this new operation, the splint coal was gained at the depth of 20 fathoms from the surface. To this pit the Pitgober day level was continued, and the water raised by the steam-engine was delivered into the

day level at 10 fathoms from the surface. Of the splint coal very little was wrought by this winning, the chief object being to work the rough coal, it being of superior quality, and commanding a ready sale;—and, in order to gain as large a breast of the rough coal by this fitting, a cross cut mine was run from the splint coal at the engine pit bottom, until it intersected the rough coal. This coal, by this operation, was wrought westward as far as the garden grounds belonging to the feuars of the old town of Dollar, and eastward into the Middleton coal-field. An attempt was made to work an additional breast of this coal, by means of under-dip workings, to the north of the engine-pit bottom, but a very limited area of coal was wrought by this plan. After this, the engine was stopped in consequence of a law-suit, afterwards noticed, and the coal is now all under water.

It is now nine years since any of the Dollar coal was wrought.

As the coals lying under the glebe lands, held in liferent by the parish minister, could be wrought in connection with these mining operations, part of the glebe coals were wrought long ago at a certain royalty for each ton, payable by the lessee of the Dollar colliery to the parish minister, as was common in such cases. This took place during the incumbency of the late Rev. John Watson; but, as matters did not go on comfortably, the lessee gave up the working of this coal.

Some considerable time after this, the whole of the coal in the glebe was purchased by the late Crawford Tait of Harviestoun, Esq. for the sum of L. 100; which sum is secured in perpetuity to the minister of the parish and his successors, the interest of which sum he draws annually from the proprietor of the estate, such being the law of the church in such cases.

The greater part of the lands in the parish, with the coals and other minerals, belonged originally to the Duke of Argyle, and his Grace not only gave off small areas of land in perpetual feu, for payment of a feu-duty, but he also feued a great part of the Dollar or Castle Campbell barony in large areas for villas. In the greater part of these feus his Grace reserved the coal and the right of working the same under the usual servitudes. All the other minerals were the property of the feuars. In a few instances, the whole of the minerals, including the coals, were given along with the surface.

In this reservation of the coal in these different feus, and the servitude of using the surface in some instances without paying any damages, a very great difficulty has arisen in the course of working this coal-field as one continuous area of coal to which the superior has right, and this difficulty has already led to years of most

expensive law-suits. The case is this : The property of Westertown of Pitgober, in the parish of Muckhart, has a servitude of drainage through it for all the coal under its surface. But the proprietor of the coal communicated the workings under Westertown with those contained in certain feus in Dollar. The proprietor of Westertown conceived, that, although he was obliged to submit to the drainage of certain coals on his lands, he was not obliged to submit to the drainage of the coal under these feus. After much litigation, this case was decided in the House of Lords in his favour. In consequence of this decision, the Dollar coal cannot now be drained as formerly, by means of the Pitgober day level, without the consent of the proprietor of the ground.

None of the edge coals of the Dollar coal-basin, which lie in a conforming situation, have been wrought. The western part of the main coal terminates or crops out under the New Town of Dollar. To the westward of this point, the mountain foot within the parish is composed of rocks of the coal formation; but whether any workable coals exist in this district within the parish, has not yet been ascertained. No coals have, hitherto, been found under the haugh or holm ground in the valley of the Devon; and it is the opinion of mining engineers, that no coals will be found there excepting the thin coals under the mountain limestone.

The Sheardale colliery has been wrought upon a very small scale, for a long period of years, and was drained by means of a day level, which discharges its water into the river Devon. Within these few years a "winning" has been made upon it, to the depth of 14 fathoms to the splint coal; and this colliery is now wrought to the extent of 6000 tons yearly.

With regard to dikes, slips, and dislocation of the strata, none but those of the most trifling kind have been found in the Dollar coal-basin; but the slips and dislocations are numerous in the Sheardale coal-field. The chief slip or dislocation hitherto discovered, is at or near the brow of the steep bank on the south side of the river Devon, which is supposed to throw the coal out to the north. This slip lies in a line nearly parallel with the face of the Ochills, and the chief great slips in the Clackmannanshire coal-field lie in the same line of direction. And it is worthy of remark, that, although the north part of the coal-field lies upon an immense mass of greenstone and trap rocks, no dikes of these last mentioned rocks have been seen in this parish, nor in any part of the Clackmannanshire coal-field.

The beautiful valley through which the river Devon runs, is

here parallel with the face of the Ochills, and appearances lead to this conclusion, that a much more powerful river than what is seen at present has made the great excavation; as the coal formation rocks on the steep banks, south side of the river Devon, are cut through from the top of the bank to a depth considerably below the present bed of the river. Upon the rocks to which this excavation is made, the recent alluvial loam, clay, and gravel are laid. Upon this subject, geologists have as usual theorized; and amongst the many theories brought forward, one is, that the waters of Loch Leven were, at one time, discharged through this valley of the Devon, until, by some natural convulsion, the loch found a new discharge for its waters to the south-east, forming the present river Leven. The levels of the surface betwixt the loch and the river Devon render this theory plausible and probable.

As to the prices of coal, they vary from time to time; but the rates are in general very moderate. At present, the price of coal at the Sheardale pits is from 4s. to 5s. per ton.

The colliers can make from 3s. to 4s. a day. They provide their own tools and light. At present, they do not pay any rent for their houses.

Zoology.—

Insects found in the Parish of Dollar.

COLEOPTERA		
<i>Cicindela campestris</i>	<i>Amara similata</i>	<i>Parnus prolifericornis</i>
<i>Dromius quadrimaculatus</i>	<i>familiaris</i>	<i>auriculatus</i>
<i>Clivina Fossor</i>	<i>trivialis</i>	<i>Elmæ Volekmarii</i>
<i>Dyschirius gibbus</i>	<i>Bradytus apricarius</i>	<i>variabilis</i>
<i>Cychrus rostratus</i>	<i>Harpalus limbatus</i>	<i>parallelopipedus</i>
<i>Carabus catenulatus</i>	<i>æneus</i>	<i>Helophorus aquaticus</i>
<i>cancellatus</i>	<i>ruficornis</i>	<i>granularis</i>
<i>arvensis</i>	<i>Philochthus biguttatus</i>	<i>griseus</i>
<i>violaceus</i>	<i>Peryphus littoralis</i>	<i>Hydrobius fuscipes</i>
<i>Helobia brevicollis</i>	<i>tibialis</i>	<i>bipunctatus</i>
<i>Gyllenhallii</i>	<i>Tachypus properans</i>	<i>Cercyon oboletum</i>
<i>Do. var. β</i>	<i>Bembidium paludosum</i>	<i>picinum</i>
<i>Leistus fulvibarbis</i>	<i>Notiophilus biguttatus</i>	<i>suturale</i>
<i>rufescens</i>	<i>Elaphrus cupreus</i>	<i>melanocephalus</i>
<i>Loricera pilicornis</i>	<i>riparius</i>	<i>hæmorrhoidale</i>
<i>Badister bipustulatus</i>	<i>Haliphus ferrugineus</i>	<i>quisquillum</i>
<i>Chlenius nigricornis</i>	<i>lineato-collis</i>	<i>Sphæridium quadrimaculatum</i>
<i>Anchomenus prasinus</i>	<i>ruficollis</i>	
<i>albipes</i>	<i>Hydroporus depressus</i>	<i>Leiodes humeralis</i>
<i>Platynus angusticollis</i>	<i>melanocephalus</i>	<i>Agathidium atrum</i>
<i>Pristonychus Terricola</i>	<i>Colymbetes guttatus</i>	<i>Choleva angustata</i>
<i>Agonum marginatum</i>	<i>fuliginosus</i>	<i>Ptomaphagus truncatus</i>
<i>parumpunctatum</i>	<i>exsoletus</i>	<i>Catops tristis</i>
<i>Calathus melanocephalus</i>	<i>bipunctatus</i>	<i>Neerophorus Humator</i>
<i>Cisteloides</i>	<i>Sturmii</i>	<i>vestigator</i>
<i>Argutor erythropus</i>	<i>maculatus</i>	<i>mortuorum</i>
<i>Pæcilus cupreus</i>	<i>bipustulatus</i>	<i>Necrodes littoralis</i>
<i>Omascus Nigrita</i>	<i>Alve</i>	<i>Oiceoptoma rugosa</i>
<i>melanarius</i>	<i>fuscus</i>	<i>Silpha obscura</i>
<i>Platysma niger</i>	<i>Dytiscus marginalis</i>	<i>nigrita</i>
<i>Steropus madidus</i>	<i>punctulatus</i>	<i>opaca</i>
<i>Do. var. β</i>	<i>Acilius sulcatus</i>	<i>Phosphugum atrata</i>
<i>baæ striola</i>	<i>Gyrinus natator</i>	<i>Do. var. β</i>
		<i>Nitidula bipustulata</i>

Nitidula oblonga	Nedyus contractus	Helodes Beccabunga
Meligethes aeneus	pollinarius	Cassida equestris
viridescens	Grypidius Equiseti	rubiginosa
Pedicularius	Hypera punctata	Coccinella septempunctata
Campita lutea	arator	quinquepunctata
Byturus tomentosus	Rumicis	undecimpunctata
Byrrhus pilula	nigrirostris	oblongo-guttata
dorsalis	Hylobius Abietis	quatordecim gut-
uriceus	Barynotus mercurialis	tata
Onthophilus striatus	Merionus obscurus	tredecimpunctata
Hister cadaverinus	clavatus	dispar
carbonarius	Otiorhynchus piceus	variabilis
aeneus	Strophosomus Coryli	Cacicula pectoralis
Geotrupes sylvaticus	Sciaphilus muricatus	Blaps mortisaga
stercorarius	Sitonia ulices	Anaspis obscura
Aphodius Fossor	tibialis	Mordella aculeata
finetarius	Polydrusus undatus	Meloe proscarabaeus
stictitatus	oblongus	Bolitobius atricapillus
inquinatus	Phyllobius pyri	Tachyporus analis
terrestris	alni	Creophilus maxilloxus
rufipes	argentatus	Staphylinus pubescens
merdarius	mali	castanopterus
Serica brunnea	uniformis	aeneocephalus
Phyllopertha horticola	viridicollis	Goërius olens
Cataphagus obscurus	Apion Rumicis	Ocypus similis
limbatus	Radiolus	Quedius tristis
marginatus	Pisi	suturalis
Hypnoidus riparius	violaceum	Philonthus laminatus
quadripustula-	virens	splendens
tus	flavipes	politus
Ctenicerus pectenicornis	apricans	varians
cupreus	Callidium striatum	Othius fulgidus
Do. var β	Rhagium bifasciatum	Stenus biguttatus
Anathrotus niger	Donacia cincta	
ruficaudis	Proteus	DERMAPTERA.
Aplotarsus testaceus	linearis	Lebia minor
rufipes	Crioceris cyanella	
Quercus	melanopa	ORTHOPTERA.
Campylis linearis	Galeruca tanaceti	Acheta domestica
Atopa cervina	Capreae	
Do. var β and c	Nymphææ	NEUROPTERA.
Cyphon marginatus	Luperus flavipes	Æshna varia
melanurus	Haltica memorum	forcipata
Telephorus rusticus	Pseudacori	Calepteryx Virgo
dispar	tabida	
pellucidus	atricilla	TRICHOPTERA.
lividus	aerata	Phryganea grandis
cyaneus	ferruginea	
nigricans	oleracea	HYMENOPTERA.
pallidus	Sphæroderma testacea	Melitta picea
testaceus	Chrysomela Litura	Odynerus murinus
pulicarius	var. L.	Chrysis ignita
melanurus	varians	Acrydium sabulatum
bicolor	fastuosa	
Malthinus biguttulus	staphylaea	LEPIDOPTERA.
Necrobia violacea	polita	Mancipium cardamines
Anobium castaneum	pallida	Melitta artemisia
striatum	Phaedon betulae	Euphrosyno
molle	tumidula	Argynnis Aglaia
Cis Boleti	marginella	Cynthia Cardui
Hylurgus ater	Vitellinae	Vanessa Atalanta
Cionus Scrophulariae	Polygoni	Io.
Blattariae	Raphani	Urticae
Nedyus assimilis	Melasoma Populi	Hipparchia Megera

Hipparchia Polydama	Pygæra bucephala	Hipparchus Papilionarius
Pamphilus	Cerura vinula	Xanthosetia Zægana
Janira	Lasiocampa Quercus	
Hyperanthus	Orgyia antiqua	DIPTERA.
Lycæna Phleas	Euthemonia Russula	Tabanus tropicus
Polyommatus Arion	Phragmatobia fuliginosa	bovinus
Artaxerxes	Charæa graminis	Paganus
Alexis	Thyatira batis	
Anthrocera filipendula	Plusia Festuca	HOMALOPTERA
Smerinthus Populi	Percontationis	Hippobosca equina
Acherontia Atropos	interrogationis	
Deilephila Porcellus	Gamma	HEMIPTERA.
Macroglossa Stellatarum	chrysis	Pentatoma rufipes
Hepialus hectus	Geometra illunaria	Nepa cinerea
sylvinus	illustraria	Notonecta glauca
Humuli	Campæa Margaritata	Corixa Geoffroyi.
Velleda		

The insects most destructive to fruit-trees and fruits in the parish are :

Acarus tellurius, red spider ; *A. holosericus*, scarlet acarus. —This and the preceding, similar in appearance, are often confounded with each other. Both are destructive to the leaves of all fruit-trees, and particularly the peach. These insects are too common. The means usually employed for their destruction are water with a little sulphur in it, thrown forcibly against the tree, from the pipe of a garden-engine, or other means.

Eriosoma Mali, American blight.—This is the scourge of the apple tree, no part of which is exempt from it ; it is sometimes found even in the pear. It exists in several gardens in the parish, but not generally. Among the many means employed to get rid of this destructive insect, the most effectual is to employ a painter's brush in rubbing in, on the infected parts of the tree, a strong size made of glue, or any other similar substance. This to be continued so long as the pest appears.

Coccus Arborea, tree coccus.—This insect, although usually confined to the forests, has found its way into the gardens, and covers the smooth branches of the apple and pear in the form of a brown scale. It is very common, and may be destroyed by the same means as the preceding, or by a wash made of tobacco liquor, sulphur, nux vomica, and water.

Anthonomus pomorum, apple weevil.—The larvæ of this little insect are destructive to the flower-buds of the apple. It is not very common here, although in some districts it does much injury. No means have hitherto been found to prevent its ravages. Wherever it abounds, the bullfinch is always to be seen in proportion, and is its natural destroyer.

Polydrusus oblongus, a weevil, the larvæ of which destroy

the unexpanded blossoms of the pear. It is not very common in the gardens, but is plentiful on the hawthorn and other trees. The same remarks apply for its destruction as in the preceding.

Yponomenta padella.—The larvæ of this insect are very injurious to the apple tree, sometimes disleafing every branch. It does not frequently appear here, but is too common in many other parts. The most efficacious method to destroy it, is to pick the webs and insects off with the hand, as soon as they appear.

Phalæna pomonella, *P. grossulariæ*, and *P. waveria*.—The caterpillars of these three moths almost yearly commit great ravages on the leaves of the respective trees which they inhabit. Various means are employed to destroy them, but the most effectual is to pick them with the hand.

Nematus Ribesii, gooseberry fly.—The caterpillar of this fly also does considerable injury to the leaves of the gooseberry tree, and can only be subdued by picking.

Lampronia capitella.—The larvæ of this insect enter the points of the young shoots on the currant tree, eating their way downwards : thus destroying the young wood. This insect does not confine its depredations to the currant alone ; the tender shoots of many other shrubs are injured by it. Its progress can only be arrested by removing the injured parts.

Aphis cerasi, black fly.—Infesting the young shoots of the cherry tree ; very common.

The green fly, a species of *Aphis*, is the pest of all fruit-trees, and of almost every other plant ; appearing on the tender points in considerable numbers. This and the preceding are easily destroyed, by washing the trees with tobacco water, or fumigation with the same material.

Vespa vulgaris, the Wasp ; and *Formicula auriculata*, the earwig, destroy pulpy fruits. The first may be taken in quantities by a common bottle half-filled with water and sugar ; the latter, by tubes of tin, or even pieces of hollow bean-straw placed near their haunts.

Birds.—In the parish of Dollar, besides its due portion of the more common birds, there are several very rare ones, such as

Parus palustris
ater
caudatus

Motacilla regulus
Rallus aquaticus
Loxia curvirostra

Loxia pyrrhula
Fringilla carduelis
Alcedo ispida

Of the *Falco* order that occasionally appear in and near the village, we have seen the following :

Falco Tinnunculus

F. cyaneus

F. Æsalon

F. nisus

To show the strength of wing, and keenness of pursuit of rapacious birds after their prey, we may here mention that in the summer of 1838, a female sparrow-hawk, in pursuit of a small bird, smashed and drove through a pane of glass in a private house. Other instances of the same kind have occurred here.

Botany.—

List of Plants found in Dollar and its neighbourhood :

Ligustrum vulgare	Convallaria majalis	Lathræa squamaria
Circea Lutetiana	Juncus triglumis	Linaria Cymbalaria
alpina	Hyacinthus nonscriptus	Scrophularia aquatica
Veronica alpina	Luzula maxima	Cardamine amara
scutellata	Berberis vulgaris	Draba verna
Anagallis	Trientalis Europæus	Barbarea vulgaris
officinalis	Epilobium angustifolium	Hesperis matronalis
Pinguicula vulgaris	alsinifolium	Geranium sylvaticum
Anthoxanthum odoratum	Vaccinium Vitis-idaea	pratense
Valeriana Pyrenaica	Oxycoccus	lucidum
Fedia olitoria	Paris quadrifolia	dissectum
Eriophorum vaginatum	Adoxa Moschatellina	columbinum
angustifolium	Pyrola media	Malva Moschata
Melica nutans	minor	Fumaria claviculata
uniflora	Chrysosplenium alternifolium	Genista anglica
Poa rigida	Saxifraga stellaris	Ulex nanus
Montia fontana	aizoides	Orobus tuberosus
Dipsacus fullonum	caespitosa	Vicia sylvatica
Sherardia arvensis	granulata	Ornithopus perpusillus
Asperula odorata	Stellaria nemorum	Hypericum humifusum
Galium cruciatum	Holostea	pulchrum
saxatile	Arenaria trinervis	Bidens cernua
Parietaria officinalis	verna	tripartita
Potamogeton nutans	Sedum Telephium	Eupatorium cannabinum
fluitans	villosum	Orchis latifolia
Myosotis palustris	Anglicum	mascula
versicolor	Oxalis Acetosella	maculata
Pulmonaria officinalis	Reseda Luteola	Gymnadenia conopsea
Symphytum officinale	Prunus Padus	Listera ovata
Echium vulgare	Rosa arvensis	cordata
Lycopsis arvensis	Rubus Idæus	nidus-avis
Primula veris	Saxatilis	Habenaria viridis
Lysmachia Nummularia	Chamæmorus	albida
Anagallis cærulea	Comarum palustre	bifolia
Polemonium cæruleum	Papaver Argemone	Epipactis latifolia
Campanula latifolia	Cistus Helianthemum	Salix herbacea
Solanum Dulcamara	Anemone nemorosa	Empetrum nigrum
Viola palustris	Ranunculus Lingua	Polypodium Phegopteris
tricolor	Hederaceus	Dryopteris
Erythræa centaurea	auricomus	Scolopendrium vulgare
Gentiana campestris	Trollius Europæus	Botrychium Lunaria
Viburnum opulus	Galeobdolon luteum	Equisetum Drummondii
Parnassia palustris	Melampyrum sylvaticum	Agaricus campestris
Drosera rotundifolia		Peziza aurantia.
Allium ursinum		

Trees.—The parish throughout is interspersed with plantations, belts, and hedge-row trees, of all the sorts usually cultivated in this country, viz. oak, ash, and elm, beech, plane, and the fir tribes. The rowan and the birch appear indigenous in Castle-Campbell Glen; the alder to the banks of the Devon; and the wild-cherry or gean is also a native tree. Of late years, the more rare hardy trees, as the chestnuts, walnut, maples, and Turkey and

American oaks have been introduced into ornamental plantations. In general, the whole, both common and uncommon, appear to grow in the greatest luxuriance. The soil in the low grounds is more congenial to the growth of hard-wooded trees, where they have, with few exceptions, been planted. The high grounds are more suitable for the larch and Scotch fir. Fruit-trees have been planted with variable success. The apple, for a few years, grows with vigour, and bears fruit; but as soon as the roots penetrate the subsoil—which is in many places a retentive clay—the trees begin to canker, and gradually decay. The soil appears more adapted to the growth of the pear; even the oldest trees are, for the most part, healthy, and in favourable seasons produce fruit in abundance. The plum and the cherry are seldom planted.

Although there are a number of old trees scattered over the parish, few present any remarkable appearance for size or singularity of form. About thirty yards from the entrance to Castle-Campbell, on the north, there stands a group of aged plane trees, one of which measures 13 feet in circumference, at about 8 feet from the ground. This tree is remarkable for the singular beauty and symmetry of its form. From the earliest remembrance, it has borne the name of “the Maiden Tree.” The whole group are very old, but still retain the vigour of health.

Near the church there are a few old trees, chiefly ash. One of them, some years since, presented a curious study to the vegetable physiologist. The trunk had become hollow, with an aperture at the bottom. A considerable quantity of decayed matter had accumulated within. A root, apparently from the insertion of a large limb, descended, lining the internal cavity with its long and slender rootlets, many of them luxuriating in the vegetable substance below. This decayed vegetable matter has been gradually exhausted, and the roots have since disappeared.

II.—CIVIL HISTORY.

Eminent Men.—We cannot omit to take some notice of Dean Thomas Forrest, commonly called the Vicar of Dollar, who suffered martyrdom for his liberal opinions. Spottiswood, in his History of the Church of Scotland, informs us, that there was a meeting of Bishops held at Edinburgh, in the month of February 1538, when five persons were accused of heresy. Among these was the Vicar of Dollar, Thomas Forrest, who, some time before the meeting, “had been called before the Bishop of Dunkeld, his ordinary, for preaching every Sunday to his parishioners upon the

Epistles and Gospels of the day, and desired to forbear, seeing his diligence that way brought him in suspicion of heresie. If he could find a good Gospel or a good Epistle that made for the liberty of the holy Church, the Bishop willed him to preach that to his people, and let the rest be. The honest man replying, That he had read both the New Testament and the Old, and that he had never found an ill Epistle or an ill Gospel in any of them, the Bishop said, I thank God I have lived well these many years, and never knew either the old or new. I content me with my portuis and pontificall; and if you, Dean Thomas, leave not these fantasies, you will repent when you cannot mend it. Dean Thomas answered, That he believed it was his duty to do what he did, and that he had laid his accompt with any danger that might follow. So at this time being brought in question with the other four persons, they were all together condemned, and burnt in the fire upon the Castlehill of Edinburgh."

John Macnab.—Dollar Institution.—There is another person, a native of this parish, whom we must not pass over with a summary notice, as he was the endower of what now forms the most remarkable feature in the parish, viz. the Dollar Institution. We mean John Macnab. He was not distinguished by his parentage or learning, but eminently so by the munificent bequest which he made to his native parish. His parents were poor. It appears from the session records that John Macnab was baptized in the church of Dollar, on 14th May 1732. He attended occasionally the parish school: and it is said he herded cattle, even after he became a grown lad; but, being tired of this occupation, he set off one day to Kincardine, the nearest sea-port, and engaged himself with a coasting trader. Afterwards, he went to sea again, and determined to try his fortune on the deep. We are told upon very good authority, that when he set out for Leith to get on board a ship there, he had not a farthing in his pocket; and that when he came to the Queensferry, he was unable to pay his passage across, though the demand was only three half-pence. Out of this difficulty he was relieved by the kindness of a person who lived in Dollar, and who knew him. After crossing the ferry, they both walked together to Edinburgh. They separated at Edinburgh, and at parting his kind acquaintance gave him a sixpence to enable him to make his way to Leith; where he engaged himself with the master of a ship. While at sea he saved some money, and afterwards became what is

called a ship-husband. In this business, he was very successful, and amassed a considerable fortune. He came to London, and settled in the neighbourhood. It was there that he added considerably to his former fortune, by several fortunate speculations in buying stock. At his death, it was found that he had amassed a very considerable fortune, invested in ships, and in the funds and other Government securities. By his will, he ordered the whole to be collected into one sum, the half of which he bequeathed to his cousin, John Macnab. The other half of his fortune he ordered to be laid out in the public funds, or some such security, to bring an annual income for the benefit of a charity or school for the poor of the parish of Dollar, his native parish. The half of his property thus bequeathed to Dollar was of a considerable amount, being no less than L. 90,000 three per cents, besides certain small legacies. The stock set apart to pay these annuities was at the death of the annuitants to be added to the Dollar charity or school fund, and which has now been actually done.

His will is dated 8th of May 1800, a few months after he had paid a visit to his native parish, in Scotland, with the view of ascertaining to what purposes, and under what management, the legacy which he was then meditating could be best applied. He added a codicil on 12th January 1802, bequeathing to his housekeeper an additional L.50. The will, though oddly worded, from his defective scholarship, was sustained as a legal deed in Doctors Commons. But, in consequence of his executors refusing to act, the money was thrown into Chancery, which led to a long-protracted litigation. The Court of Chancery admitted that the minister and elders of the parish were the trustees of the fund according to the will; but, before handing over to them the money, it was at first insisted that the kirk-session should exhibit, for the approbation of the Court, a scheme of the way in which they meant to dispose of the legacy. In compliance with this request, on the part of the Court of Chancery, the kirk session of Dollar laid before it a plan for erecting a great hospital or poor house, (misinterpreting, as we think, the meaning of the word charity in the will). When this intended scheme came to the ears of the heritors, they became naturally alarmed for their properties,—seeing at once the injury it might eventually do them, if poor were collected from all quarters, and the whole parish converted into a great lazarus-house. Accordingly they, and especially Mr Tait of Harviestoun, the principal heritor, who was most anxious for the es-

tablishment of a great seminary for education, made every effort to defeat the scheme. But as the heritors were not trustees, and consequently had no right to interfere in the management, the Court of Chancery was disposed to give in to the views of the minister and elders. Accordingly, after certain modifications of the scheme proposed, the court was inclined to sanction the erection of a poor's house. Sir William Grant, then Master of the Rolls, had actually approved of the scheme of a poor's house; but, before he issued his order, Mr Watson, the then minister, died, and the writer of this account was presented to the living, by Mr Tait, the patron. On becoming minister of the parish, he immediately put into the Court of Chancery, his claim to be heard on the subject of the appropriation of the legacy, and, by the advice of an eminent lawyer, Sir Islay Campbell, late President of the Court of Session, he urged this plea,—that, since the legacy was left for behoof of persons residing in Scotland, the Court of Chancery in England had no right to dictate or control the trustees in the disposal of the funds; and since they had already found that the ministers and elders of the parish were the trustees named in the will, they should at once put them in possession of the money bequeathed, leaving it to them to dispose of the legacy pursuant to the will of the testator, but subject to the control of the courts in Scotland. Lord Eldon, who was Lord Chancellor at the time, entered into these views, and pronounced a decretal order, that the half-yearly dividends, accruing from the stock belonging to the Dollar School, which had been vested in the funds in the name of the Accountant-General of Chancery, should be paid over to the minister and elders of the parish of Dollar, to be by them applied for the benefit of a charity or school for the poor of the said parish of Dollar, pursuant to the will of the testator, John Macnab.

We then urged a new plea, viz. that, since the Lord Chancellor had ordered the half-yearly dividends arising from the stock in the funds belonging to the Dollar School at the death of the testator, to be paid to the minister and elders of Dollar, he should also order that the dividends which had been accumulating for more than sixteen years since the death of the testator in January 1802, should be paid over to the said minister and elders. This Lord Eldon admitted to be reasonable, and pronounced an order accordingly. The legacy paid into Chancery, by Mr Macnab's executors, for behoof of the Dollar School, when vested in the 3 per cents, amounted to L. 55,110, 9s. 2d. of that kind of stock; and on the 31st

December 1825, with the accumulated dividends, and after paying all previous expenses of buildings, salaries, &c. it amounted to L. 74,256, 9s. 11d. of 3 per cent. stock, yielding an yearly income of L. 2227, 18s. 8d. Sterling.

Since then, the legacy of L.100, left to Mrs Jellard, and the legacy of L.50, left to Miss Edwards, has fallen into the Dollar school fund, which gives an addition of L.150 to the yearly income. But this annual income has somewhat diminished since 1825, by the trustees buying up the superiority of the grounds belonging to the school, and certain feus adjoining; and also by building another teacher's house. The superiority and the new house together cost nearly L.7500.

Now to meet this outlay, it was necessary to sell out L.7111, 11s. three per cent. stock, which has reduced the yearly income to L.2057. To this may be added something more than L.100, arising from school-fees, and the small feus which the trustees have purchased; and the feu-duty formerly payable to the superior is now saved.

The next point to be noticed is the mode in which these ample funds have been disposed of. The trustees having made up their minds that a school and not an alms-house was meant by the testator, the next point was, how the funds could best be expended, seeing that they were more ample than was necessary for procuring for the poor the mere ordinary branches of education, taught at parish schools. After serious deliberation, they adopted the opinion, that it was within the sound exercise of the latitude given them by the very general terms of the will, for them to establish a great seminary of education in the parish; in which, while the immediate object would be that of teaching the poor the ordinary branches of instruction, classes should be opened for the higher branches of education, in order that the more industrious and talented among the poor scholars might be enabled to obtain that knowledge, which might fit them for rising above their present level in society, and for acquiring both riches and reputation in the world.

But, before taking the necessary steps for this purpose, the trustees deemed it prudent to take the opinion of counsel, both with regard to the extent of their powers under the will, and also the soundness of the views which they entertained respecting the application of the funds intrusted to them. In these views, they were confirmed by the opinion of the most eminent counsel at the

bar, Messrs Cranston, Thomson, and Jeffrey. Proceeding on the same advice, the trustees allowed a free admission to the children of the poor of the parish of Dollar, and to all others, whether natives of the parish or occasional settlers, on payment of school-fees. Counsel were also of opinion that the trustees might make allowances to assist the more deserving of the poor scholars after they had left school, either in the farther prosecution of their education, or in following any of the mechanical professions. The trustees, therefore, set about the erection of a large public building, corresponding to the ample means they possessed, and to the number of classes they intended to open—giving to each class a separate class-room. For some of the more important of the classes they appointed teachers immediately—providing temporary accommodation for them, and the rest they added when the building was completed. The design of the building was given by William Playfair, Esq. architect, Edinburgh. It is a Grecian building, 186 feet in length, and 63 feet in breadth. In the centre of the front, which looks to the west, there is an elegant portico of six columns, and the top of the wall all round is surmounted with a block course to conceal the different roofs and chimneys. The whole of the centre of the building is occupied by a great hall or library, $45\frac{1}{2}$ feet in length, and 45 feet in breadth, which is lighted by a cupola in the roof, the height from the upper part of the dome, which is supported by fluted columns, being 45 feet to the floor. The rest of the building is occupied by commodious and lofty class-rooms, the trustees' room, in which is a museum, and the janitor's house.

The different teachers appointed by the trustees of the Dollar Institution are as follows: A teacher of English, a teacher of writing and arithmetic, a teacher of Latin and Greek, a teacher of modern languages, a teacher of drawing, a teacher of mathematics, and also a female teacher of sewing and fancy-work for the girls of the parish. A class for geography is likewise taught for six months during summer, and an infant school-house has been added to the establishment. There is also a class for botany taught during the summer months. The appointments of all the masters are during the pleasure of the trustees. The first arrangement, with regard to the income of the masters, was to give each a fixed salary, with a house, for teaching the poor children of the parish gratis; and they were farther allowed to exact from those pupils who were not entitled to gratis

education, certain fixed fees for each class they attended. But as this arrangement of allowing masters to exact fees was represented as creating an invidious distinction between the children who paid fees to the masters, and those who paid nothing, the system was changed, and no fees were allowed to be received by the masters ; but the fees fixed by the trustees were appointed to be levied quarterly by the treasurer of the institution, from the pupils not entitled to gratis education. The fees paid to the institution are quite trifling ; and rise by a graduated scale corresponding to the supposed ability of parents to pay. The highest fees are paid by boarders, or those who have no domicile in the parish. The quarterly payments made by them are 5s. for each class they attend ; while those on the lower grade, or the income of whose parents is supposed not to exceed L.30, pay only 8d. per quarter for each class they attend ; and if there are more than one attending school in the same family, the rest are admitted at half-price. Besides the school-fees, each pupil, not on the foundation, pays a small sum quarterly for coals, cleaning the school and library ; and this contribution, like the school-fees, is levied upon a gradual scale, and with the same deduction, if more than one of a family are in attendance on school at the same time.

For some years after the first opening of the Dollar Institution, besides the education of the parishioners, it had considerable celebrity as an establishment for boarders from other parts of the country, the masters being allowed to receive boarders into their houses, who are admitted to the different classes of the institution on paying the highest rate of fees. Of late years, the number of boarders has much diminished, which may in a great measure be attributed to the short-sighted conduct of certain wrong-headed persons among the parishioners. The trustees were anxious to encourage the boarding system, both because it was beneficial to the master, and more especially with a view to the benefit of the parish generally, and particularly to the shop-keepers and tradesmen, to whom boarders give a great deal of employment : but certain of the parishioners set themselves, in almost every respect, against the system which the trustees, on the opinion of the first counsel of the time, had adopted, and, amongst other things, had the indiscretion to advertise in the newspapers, that they hoped no gentleman would send his children to Dollar, to derive any advantage from a legacy, which was destined solely for the benefit of the poor. This, as may be well supposed, had the worst effect ;

and though the sentiments, even of those who were hostile to the trustees, are now much changed, yet the injury done by this rash step is scarcely retrievable; and although the jealousies and disputes which had been excited, have now much subsided, they have necessarily operated to the prejudice of the school. Notwithstanding these unpleasant occurrences; and although in as far as concerns the trustees, and more especially the minister, Macnab's legacy has not added to their comfort;—at the same time, there can be no doubt, considerable good has been done. Many of the children of the poor have received a liberal education, which, had it not been for the legacy, they had little chance of obtaining. Many of them, it is but right to state, have been the most distinguished scholars in all the different classes, and have regularly carried off the most valuable prizes; and although, as is to be expected, many of them lose the advantages of such an education, by entering into professions where it is not required, and in some instances contract bad habits, which render their superior education a curse, rather than a blessing, by increasing their powers and means of doing mischief; yet many of the children of the poor, in consequence of the superior education they have received at Macnab's school, have risen to respectable situations in life. Some of them have become distinguished parochial schoolmasters, and tutors in gentlemen's families. Others of them have got situations as clerks in mercantile houses; and not a few have become merchants themselves in different lines, and have been highly successful in business. A great number of pupils from the academy, after finishing their education, have been sent out as gardeners, and have got into very respectable situations in the gardens of the nobility and gentry in various parts of the country. We omitted to mention, that, besides an extensive lawn around the public building, the grounds on the north of the academy park, consisting of several acres, have been formed into a garden and nursery, where every kind of culinary and horticultural produce, besides shrubs, trees, and flowers, are raised. A certain number of the pupils of the academy, who have finished their general education, are allowed to enter the garden as apprentices, where, under the superintendence of an experienced and scientific gardener, they are instructed in all the branches of gardening. They also attend a class for drawing in the evening; and with some other pupils, both male and female, receive lessons in botany from the master gardener. In this way they become qualified for places in gentle-

men's gardens. The number of pupils of both sexes who attend the different classes is at present above 200.*

Land-owners.—The principal land-owners in the parish are, the Globe Insurance Company, (formerly Crawford Tait, Esq.); William Clark of Dollarbeg; Robert Haig of Dollarfield; Mrs Duncanson of Wester Sheardale; John M'Arthur Moir of Hillfoot; and James Erskine of Aberdona.

Parochial Registers.—The minutes of the kirk-session of Dollar commence in May 1701, and continue to the present time, with the exception of six years, viz. from October 1736 to May 1742, during which period no register seems to have been kept. There are three volumes of minutes, containing the transactions of the kirk-session, from 1701 till October 1834, with the above exception, and one in progress. The register contains nothing deserving of notice; it is entirely filled with notices of births, deaths, marriages, and cases of church discipline. The two first volumes are very carelessly kept. The names of the persons who compose the sederunt of the meeting are seldom given, so that it is often difficult to ascertain who was minister at the time.

Ministers.—There have been four ministers in Dollar since the Revolution, the present incumbent making the fifth. The names of the four first are, John Gray, William Walker, Robert Finlay, and John Watson; but, from the want of sederunts, we are unable to give the time when they first began their ministry. In the former Statistical Account, Mr Gray is said to have been ordained in 1709; but this is incorrect; for we find his name in the minutes several years previous to that date.† Mr Gray died in the year

* Reference may here be made to the notice in the Old Account of the Literary Shepherd, John Christie, who tended his own sheep on the farm of Craigninnan on the White Wisp Hill, one of the Ochills.

† Mr Gray received the nickname of the Baron, from the circumstance of his having purchased two baronies during his incumbency, the one in Fifeshire, and the other in Fossaway parish. See further particulars respecting these purchases in a note, page 166 of the former Statistical Account. It is said he paid for the two baronies nearly L. 5000—a large sum in those days; and that the custom of his parishioners depositing in his hands the small sums they scraped together supplied him with the money for making these purchases. On one occasion, when a run was made upon him from his credit having become doubtful, it is said he arranged along the wall of his deposit room, a number of pewter pint stoups, filled nearly to the mouth with sand. Into the few inches near the top, not filled with sand, he put a number of guineas, half guineas, crowns, half-crowns, shillings, &c. The first who came for his money, was frankly told he would have it, and it was immediately dealt out to him from the pewter stoups. The poor man, on seeing there was no want of money, as he supposed, returned what he had drawn, and begged the minister to keep it for him, as he had no use for it. This incident had a similar effect upon the other claimants; and by this ingenious contrivance, did the minister of Dollar stave off a rather formidable run upon his resources, for he had really laid out the greater part of his deposits in buying land.

1745; and left at his death a small legacy of 300 merks Scots for the behoof of the poor of the parish. He bequeathed his whole property to his only daughter, Jean Gray, who died in the year 1792. A few years before her death, she sold all the landed property left her by her father, viz. the two baronies, by which she realized no less than L. 20,000. At her death, she left several considerable legacies; among the rest, L. 50 to the poor of the parish of Dollar, and a very beautiful large folio Baskerville Bible to the kirk-session, for the use of the minister.

The only other minister of Dollar who attracted any kind of public notice, was Mr Robert Finlay, the third minister after Presbytery was again established. He was much esteemed by the parish, and was a person of great humour.*

Antiquities.—There are no crosses or obelisks or ruins of religious houses in the parish, and no medals or coins have been dug up. There are two tumuli, the one in the north-east corner of the old village, and the other about half a mile to the west, on the borders of the old turnpike road. Both of them have been opened, and they are found to contain urns filled with bones: but nothing is known of their history. A man is said to have been burnt

* The following incident in his history is too remarkable to pass unnoticed: About the year 1767, Sir John Stewart of Allanbank gave a presentation to Mr David Thomson, minister of Gargunnoch, to the vacant parish of St Ninians. Mr Thomson was not acceptable to the parishioners of St Ninians, who opposed it, and were joined in their opposition by the Presbytery of Stirling, who refused to translate Mr Thomson to St Ninians, on the ground that in their opinion he had not a sufficient call. The settlement or translation was, for one reason or another, hung up for about eight years. At last, the General Assembly gave a peremptory order to the Presbytery of Stirling to proceed with the settlement, and even named the particular day on which they were to induct Mr Thomson; ordering at the same time every member of Presbytery to be present at the induction. The Presbytery, after this, considered it unsafe to delay the induction longer, and therefore they resolved, though with great reluctance, to obey the order of the supreme court. The question now was, which of their number was to act as Moderator on the occasion. All of them wished to decline what they reckoned a disagreeable duty; but Mr Finlay readily undertook it. Accordingly, on the day named by the Assembly, (the last Tuesday of June,) the Presbytery met at St Ninians, and after the usual sermon, Mr Finlay proceeded with the induction; but, whether from forgetfulness, or by way of showing his contempt for the presentee, he omitted to put to him the questions which are usually put on the occasion; but, what was worse, when he came to pronounce the *verba solemnia* of the induction, instead of saying—I, in the name of the Presbytery of Stirling, declare you, Mr Thomson, minister of the parish of St Ninians, with all the privileges and emoluments thereunto belonging; he merely said, I appoint you, Mr Thomson, to be stipend lifter of this parish. This, as might well be supposed, gave great offence to the parishioners of St Ninians, and to the churches in general. The consequence was, that six of the elders and a number of the heritors of the parish gave in a petition and complaint to the General Assembly against Mr Finlay, which was served upon him, and he was appointed to be summoned to appear at the bar of the Assembly to answer the said complaint. Mr Finlay compeared at the bar, and made such an acknowledgement as satisfied the Assembly, after being sharply rebuked by the Moderator.

as a wizard, at the foot of Gloomhill, a little to the north-east of Dollar, towards the close of the sixteenth century. The wooden stake to which he was tied by the executioner, was still standing, fifty years ago ; but, being completely rotten, one of the lairds of Hillfoot on whose property it stood, removed it and put a stone in its place to mark the site, which still remains. The principal antiquity in the parish is the ruins of Castle Gloom or Castle Campbell. It is a place obviously of great antiquity ; but it is not known, when or by whom the castle was first built. The thickness of the walls, and the facilities which it possesses for annoying assailants and defending those within, plainly show that it was intended for a place of security in those times when Scottish barons were continually at war with one another. It seems to have been built at different times ; or at least large additions have been made to the original structure. The latest built is obviously the southern part, which is now in a state of perfect ruin ;—but the keep, which appears to be the oldest part of the edifice, is still comparatively in a state of good preservation. The outlines of the hall with its lofty ceiling, and other rooms of the same magnitude, are still easily traced, with the narrow openings for windows in walls of enormous thickness, which must have given the rooms an air of magnificence and of gloomy grandeur to their inmates, as well as a feeling of great security. The steps of the spiral staircase, which leads to the top, are a good deal wasted by time and the weather ; but they still afford a safe ascent, though steep and fatiguing. The roof of the tower or keep is a square, or rather oblong, of considerable dimensions, covered with turf, where many a *fete champetre* has been of late years held, and where dancing parties have amused themselves in the moon-light. From the top of the keep, the view to the south is extremely beautiful, including the hills of Linlithgow and Stirlingshire, and Tinto, in Lanarkshire, in the distance, with the quiet village of Dollar immediately below, and its tiny stream, like a silver thread, winding its way to the Devon. The view of the wooded banks on both sides of the castle, is picturesque in the highest degree. There appears to have been large vaults under the south part of the castle, for stables, cellars, and other purposes. These vaults seem to have run under ground for a considerable extent beyond the walls of the castle ; at least the reverberating sound which is heard on striking with the foot the green sward in front of the building, would lead to this conclusion.

We believe it is pretty generally known that this castle, venerable for its antiquity, was consigned to the flames by the Marquis of Montrose in the year 1644. After the battles of Auldearne and Alford, in the north, in which the gallant Marquis was completely successful, he determined to march to the south of Scotland, in order to put a final period, as he boasted, to the power of the Covenanters; and the decisive victory which he gained next year at Kilsyth, nearly showed that it was no empty boast. On his way to the south, after his great success in the north, he made a halt at Kinross, and proceeded westward to Dollar, to burn the castle there, and the houses in the neighbourhood belonging to the vassals of the Earl of Argyle. Not content with wreaking their vengeance on the proud castle of their feudal enemy, they burnt at the same time every house in Dollar and Muckhart; the inhabitants of both parishes being vassals of the Duke of Argyle. It is said two houses, the one in Dollar and the other in Muckhart, escaped the vengeance of the savage clans, through a mistake on their part. The one in Dollar they imagined belonged to the abbey of Dunfermline; and the other being situated on the borders of Fossaway parish, they supposed to belong to that parish, and not to Muckhart.

It appears from charters belonging to the family of Argyle, that the Lordship of Campbell, on which the castle stands, was in the possession of that family as far back as the year 1465, and continued in their possession till 1805, when the lordship of Campbell, with the castle, was purchased by Crawford Tait, Esq. the proprietor of the adjoining estate of Harviestoun. In the year 1489, by Act of the Scottish Parliament, the name of Castle-Gloom was changed to Castle-Campbell, by which name it is now generally known. It is correctly stated in the former Statistical Account of Dollar, that the lands called the lordship of Campbell were held of the Bishop of Dunkeld: but it has been said erroneously by others, that Castle-Campbell was given by Shevez, Bishop of St Andrews, to the Earl of Argyle, as a reward for his having been an abettor in the disputed title of precedence between the Archbishop of St Andrews and the Archbishop of Glasgow. This is a mistake, as appears from the *Reliquiæ Divi Andreae*, published by George Martine in 1683. It is not said, in the *Reliquiæ Divi Andreae*, that Castle-Campbell was given to the Earl of Argyle by the Bishop of St Andrews. It was Muckhartshire, which was a separate barony to the east of Dollar, that was so given,

and at that time it appears that Castle-Campbell belonged to the family of Argyle. The words are, "It is reported that Muckhartshire was then (1491,) feued out by Shevez of St Andrews to the Earl of Argyle for siding with him; and I have heard that the first feu-charter thereof was granted at Dollar Castle, now Castle-Campbell, then and still a house belonging to Argyle."*

* In the former Statistical Account it is said, "we cannot discover how or when Castle-Campbell, with the adjoining lands, came into the possession of the Argyle family." There is certainly some difficulty in ascertaining that point. But, having got access to the charter deeds of the family, and having made a considerable research to get at the truth on the subject, we shall lay the result of our inquiries before the public. In the statute 1489, which we have given above, the Castle is described as belonging to Colin, Earl of Argyle. This Colin was the first Earl of Argyle, having been created an Earl by King James II. in 1457. We find that this Colin, first Earl of Argyle, married Isabella, said in Douglas's Peerage to be the eldest daughter, and co-heiress of John, third Lord of Lorn and Innermeath. It is stated in Douglas's Peerage, that this Lord Lorn made a destination by charter of his whole estate, to the heirs-male of his body, whom failing, to his brothers, Walter, Allan, David, and Robert. Walter, the eldest, became the fourth Lord Innermeath, as his brother Lord John left no male issue. It is stated by Douglas that this Lord Innermeath exchanged the lands of Lorn with the Earl of Argyle, for the lands of Baldoning, Inverdoning, &c. in Perthshire, and that after that exchange he dropped the title of Lorn, which was then assumed by the Earl of Argyle. Now, although Walter, the elder brother, succeeded in virtue of his brother's will, to the principal part of the landed property of John, third Lord Lorn, we have reason to think that the lands of Dollar and Gloom must have belonged to this John—Lord Lorn and Innermeath, (who had lands in different parts of the country,) and that these lands descended to his daughters as heirs-portioners. Whether the lands of Dollar and Gloom had been part of the Lorn property, or part of the Innermeath property, we have not been able to ascertain; but it is probable they belonged to Innermeath, for the Lorn property was afterwards added to Innermeath by a John Stewart, proprietor of Innermeath, marrying the daughter of Ergadia, the old Celtic proprietor of Lorn, somewhere about the year 1386. But, be that as it may, there are good grounds for supposing that the lands of Dollar and Gloom did not go along with the other property to Walter, the heir at law, but descended to his three nieces, daughters of Lord Lorn, as heirs-portioners.

What these grounds are, will appear from what we are now to state. John, third Lord of Lorn and Innermeath, had no son, as may be inferred from his brother succeeding him; but he had three daughters, Isabella Stewart, married to Colin, first Earl of Argyle; Margaret Stewart, married to Sir Colin Campbell of Glenurchie; Marion Stewart, married to Arthur Campbell of Ottar. Now, in looking to the inventory of the Argyle title-deeds, which we have compared with the title-deeds themselves, we find first mentioned a sasine dated 9th April 1465, of all and hail "the third part of the lands of Dollar and Gloom in favour of Duncan Campbell, son of Sir Colin Campbell, Knight." But Douglas (voce Breadalbane) tells us, that the eldest son of Sir Colin Campbell and Margaret Stewart, daughter of Lord Lorn, was called Duncan; and hence we are entitled to infer, that the Sir Colin Campbell mentioned in the sasine was the laird of Glenurchie, who married Margaret Stewart. The next sasine mentioned in the inventory of the Argyle title-deeds, and which is of the same date as the last mentioned, is in favour of Dame Isabella Stewart Countess of Argyle, who was the daughter of the said John, third Lord of Lorn and Innermeath, and married to Colin, first Earl of Argyle. The third sasine in the Argyle papers, of the same date with the other two, is in favour of Marion Stewart, sister to the said Countess. Now, supposing the lands of Dollar and Gloom to have belonged to John, third Lord of Lorn and Innermeath, and that they were not included in the entail in favour of his brothers, failing heirs of his own body, they must have descended to his three daughters, each of whom would have a right to a third part *pro indiviso* till a division took place. But it may be asked, what proof have we, that each of these three parts came into the possession of the Argyle family? As

Castle Campbell, with its romantic scenery, has been so often described, that we can add nothing new on the subject. Its majestic ruins are situated on a knoll or eminence—occupying a narrow glen of the Ochill hills. The view of the castle from the public road, as we pass through Dollar on our way either to Stirling or Kinross, is peculiarly striking: but it is impossible to form an adequate idea of the grandeur and variety of the scenery, without advancing nearer to the castle. After leaving the old bridge in the village of Dollar, and advancing northward along the banks of the rivulet, which descends from the Castle—as we approach Campbell wood, (as the people here call it,) and which covers the whole of the ravine—through which the stream forces its way—the castle is now more distinctly seen, and seems more elevated than it did when seen from the public road. It now appears perched on the top of a lofty knoll, or conical hill—embosomed in the surrounding mountains. The acclivities on each side of the ravine are covered with continuous woods, which gives the whole a truly picturesque appearance. Several attempts have been made to reach the castle, by tracing the bed of the stream upwards; but they have all proved unsuccessful. After great fatigue and risk, some have forced their way upwards to the place where the two streams, that surround the castle, make a junction; but beyond this, the overhanging rocks in the bed of the stream, and which nearly meet at the top, form an insuperable barrier. But though the castle is inaccessible by the bottom of the ravine, it may be approached on foot, both on the east and west side of the wooded hollow. The road on the east side, through the village of Dollar, is the only approach for carriages, or rather carts. It is a steep and rugged

to one of these three parts, there is no difficulty. It was acquired by Colin, first Earl of Argyle, in right of his wife Isabella, who was one of the daughters of the said John Lord Lorn and Innermeath; and we rather think the eldest daughter, from the circumstance of the castle being situated in that portion of the lands which fell to her share, as appears from what is said in a charter of confirmation by James IV. The third of the lands which came into the possession of Duncan Campbell of Glenurchy, through his mother Margaret Stewart, daughter of Lord Lorn, &c., became part of Argyle lands, by a deed of renunciation on the part of the said Duncan Campbell, of all rights he had to the third part of the lands of Dollar; which renunciation he made in favour of Colin, first Earl of Argyle, of date 1481, as appears from the inventory of the Argyle title-deeds. We cannot find any deed conveying to Argyle the third portion, which belonged to Marion Stewart, wife of Campbell of Ottar; but there can be no doubt that Argyle acquired this third part also, either by disposition or force; for in a charter of confirmation by James IV. of a charter by the Bishop of Dunkeld, it is expressly stated that the bishop gives to Archibald, Earl of Argyle, all and hail the lands of Campbell, *alias* Dollar or Gloom. This charter of confirmation is dated 11th May 1497. The preceding remarks, we hope, will help to solve the question how and when Castle Campbell, with the lands of Dollar or Gloom, came into the possession of the family of Argyle.

ascent, and passes the castle on the east, and then winds round to a low bridge, which forms the entrance to the castle on the north, the only point where the prominence on which the castle is situated, is connected with the surrounding mountains. The tourist on foot, instead of clambering up the whole of this rugged path, leaves it about half-way up, or less, and takes a footpath on the left, which leads down to the stream in the bottom of the valley, and, after crossing the rivulet, ascends by a narrow and difficult footpath, which winds round the knoll on which the castle is situated—gradually ascending, till it joins the carriage road at the north entry of the castle. The castle may be approached also on the west side, but there is no regular footpath. This last mentioned approach is peculiarly interesting on account of the diversified views which it gives of the old ruin and the wooded banks on the opposite side. After reaching the highest part of the bank on the west side—nearly opposite the castle, we descend to the bottom of the ravine below by a narrow winding footpath, at each turn of which, new views of the castle, and the surrounding scenery are presented. We then, by means of a wooden bridge, made of the trunks of two trees, and without any hand-rail, pass a considerable torrent, which comes down from the hills, and flows round the castle on the west side, and then joins the stream on the other side, immediately south of the castle. There are several very beautiful waterfalls on this mountain stream; but they are so much hid by the woods, through which the torrent forces its way, that they seldom attract the attention of the traveller. After passing the wooden bridge, we have to climb a very steep pathway, before we reach the carriage road, we formerly mentioned, which leads to the entrance at the back of the castle, where are the remains of the principal gateway looking to the north. It must have had a very striking appearance, when complete. A little to the north of this entrance, are seen a few ancient and noble sycamores, seemingly the remains of an avenue, which add much to the picturesque effect of the ruin.

The area around the castle is so narrow and confined, that it is impossible to quit its walls, but for a few yards, without the risk of being hurled into the depths below. On the east side, the steep acclivity terminates close to the bottom of the walls, and renders it impracticable to get round the ruin on that side. On the south side, there is a beautiful green area of considerable extent, which slopes gradually from the bottom of the ruin to the edge of

the precipice in front of the castle. Near the south-western extremity of this area, is seen the entrance to Kemp's Score, a frightful chasm in the rock, which we formerly noticed. Immediately adjoining this chasm, we find the remains of an old outwork now in ruins, which gives a highly picturesque effect to the scenery. Passing this outwork, and advancing a few steps towards the brink of the precipice, we find a concealed half-formed footpath, which winds down the wooded front of the rocks, and leads to a projection about twelve feet above the bed of the torrent, which is here seen forcing its way beneath shelving rocks, which now and then conceal it from the view of the spectator. This is certainly the most romantic part of the scenery of the castle, and will amply repay the labour of those who have sufficient nerves to undertake the descent; for it is not without some degree of risk that the attempt is made—as one false step would infallibly precipitate the traveller into the abyss below; and it is only by laying hold of shrubs and roots of trees, with which the path is strewed, that the descent and re-ascent can at all be effected.

It has been matter of surprise to many, how a place like Castle-Campbell, almost inaccessible, by its steep approach and rugged road, should have been chosen as the residence of a noble family. But there can be no doubt that the family of Argyle frequently resided here, and indeed made it their favourite residence, till it was burnt by Montrose in 1644. That the family frequently lived here, appears from the various feu-charters given to certain inhabitants of Dollar, conveying to them portions of land, on the condition of their performing certain services to the family, when they resided in the castle.* One piece of land, for instance, was given to one person for supplying bread to the family, to another for furnishing butcher-meat, and oats for the horses; to another for supplying coals; to another for providing beer, &c. On the grounds given to the brewer of the family, there is a small eminence or knoll, called the brewer's knowe—which name it still retains. But independent of the evidence arising from the feu-charters, we know from general history, that the castle was frequently made the residence of the Argyle family. About the year 1556, Archibald, the fourth Earl of Argyle, lived here. Knox, in his history, informs us that he vi-

* In some of the charters, the vassals are taken bound to carry the wine used in the castle from the Port of Alloa, and in others, to furnish horses to bring their superior and his family from Stirling.

sited the old Earl (as he calls him,) and preached for some days in his house of Castle-Campbell. The aged Earl seems to have received durable impressions from his instructions, and was, therefore, anxious that Knox should remain with him for some time : but, having received letters from the English congregation at Geneva, stating that they had made choice of him as one of their pastors, and urging him to come and take the inspection of them, Knox had made up his mind to comply with their request and to leave Scotland. Among those who listened to his discourses in Castle-Campbell, was the laird of Glenorchy, one of the ancestors of the present family of Breadalbane, who was much edified by what he heard from Knox, and, therefore, he joined Argyle in his endeavours to prevail upon him, to abandon the thought of going to Geneva, and to remain in Scotland. But as the congregation at Geneva was a favourite flock—and as he regarded the invitation sent to him, a call in Providence to go there—he considered it his duty to obey the call : and, therefore, no entreaties could prevail upon him to remain longer. On parting with them, he said, “ If God so blessed their small beginnings, that they continued in godliness, whensoever they pleased to command him, they would find him obedient ; but, once he must needs visit that little flock, which the wickedness of men had compelled him to leave.”

It is generally believed that Castle-Campbell was the place where the Sacrament of the Lord's Supper was first dispensed after the Reformation began.* This is extremely probable, for Knox, as we have already seen, preached there for several days, in the year 1556, and it is likely he would dispense the sacrament at the same time. Some go the length of pointing out the precise spot on the green sward, in front of the castle, where the ordinance was celebrated. But this is certainly going too far ; for field-preaching and dispensing ordinances in the open air, though common afterwards, was then quite unknown.

Modern Buildings.—There is a new parish church building this year (1841), upon a plan by Mr Tite, architect, London, which promises to be a very handsome structure. Its site is peculiarly well chosen, being a piece of rising ground immediately south of the present church, and gradually sloping to the south and west. The old church is but of recent date, having been built in the year 1775 ; but, owing to bad materials and insufficient workmanship, the

* The sacrament of the Lord's supper was dispensed by Knox for the first time after the Reformation in the castle at St Andrew's.

walls and roof are in a state of decay ; and besides, it afforded only the half of accommodation in sittings, which the parish were legally entitled to.

The principal manufacture in the parish is bleaching of linen. There are besides two collieries, which have an extensive sale ; one of them properly speaking is in Muckhart parish, but the workmen all live in Dollar. Two tile-works have recently been set agoing. The largest of the two is situated a few yards beyond the eastern boundary of the parish, and may, therefore, be considered as belonging to Muckhart, but the workmen all reside in Dollar. There is besides a small woollen manufactory connected with the mills in Alva. It is used chiefly for carding and spinning of wool, and the yarn is sent to Alva to be made into blankets, shawls, and other fabrics of that sort.

III.—POPULATION.

The amount of the population, as appears from a survey taken (May 1841) is about 1500, which is nearly triple of the number in 1755. This great increase has been chiefly of late years, and owing principally to the erection of Macnab's school or Dollar Institution, which hath brought to Dollar a great number of masters with their families, besides a number of boarders. Several families have come to reside in the parish, with a view to the education of their children. The increasing prosperity of the bleach-field, a new coal-work on the south of the Devon now in active operation, and the two new tile-works, have created a great demand for labourers, who, with their families, have lately settled in Dollar. Those who reside in the villages, or what are called the old and new towns of Dollar, with the mains, amount to 1058. The remaining population reside in country villas, and in detached houses, scattered over the parish.

The yearly average of births for the last seven years is	36½
deaths for the same period,	14½
marriages,	14½
The average number of persons under 15 years of age,	536
between 15 and 30,	333
30 and 50,	360
50 and 70,	202
above 70,	45

No nobility reside in the parish.

Of those who follow no profession, but have an independent fortune, the number is about	10
Proprietors of land, of the yearly value of L. 50 and upwards,	9
The number of unmarried men, bachelors and widowers, upwards of 50 years of age, is	22
The number of unmarried women, above 45 years of age, is	76
The average number of children in a family is	4½

The people in general are shrewd and intelligent, and sufficiently

capable of managing their own affairs to the best advantage. The morality of the people is upon the whole praiseworthy, though the minutes of the kirk-session record too many aberrations, on the part of young people, from the rules of strict morality; and the scenes that sometimes occur at fairs, and other merry-makings, give much annoyance to the more orderly and well-behaved portion of the community. Their religious character, compared with other parishes, is quite unexceptionable.

IV.—INDUSTRY.

Agriculture.—The following is a statement of the amount in imperial acres of the lands in Dollar parish,—in a state of cultivation,—also of the lands that have never been cultivated,—and of the lands under wood :—

	Globe Insurance Company, Never cultivated, but in pasture.	Under wood.
Arable and grass parks. 461.778	1,990.988—in Ochils Sheardale.	91.125
227.742	110.609	18.288
350	Dollarbeg and Well-hall,—Clark 60	26.356
246.561	Dollar Field, &c.—Haig. none	59.275
136.207	Hillfoot—Moir 380.876	25.223
110.983	West Sheardale—Duncanson 17.656 waste	none except brushwood.
79.454	Lawmuir—Erskine none	13.872
40.357	Lower Mains—late Futt none	none
25.223	Upper Mains—Izatt none	none
17.024	Three small Heritors none	none
46.663	Lower Mains—Lamb none	none
Total 1741.992	2560.129	284.139

There are about twenty acres of moss in easter Dollarbeg, which, by draining and burning, &c. might be brought into a state of cultivation; there are also about forty acres of waste land in Sheardale moor, which, by a similar process, might be converted into arable land: great improvements have with this view been carrying on in that district, for two years past, by an active and spirited tenant. There are also about fourteen acres in the lower grounds of wester Sheardale, which are, at present, in a marshy state, and covered with brushwood; but we fear nothing can be done to improve it, as the ground lies low, and draining is rendered impracticable by the Devon at every flood, closing the drains and forcing back the water.

There are no undivided commons in the parish. The trees usually planted are, the oak, elm, ash, beech, and plane or sycamore, the larch, Scotch fir, and the spruce. The hard-wooded kinds, with the spruce and larch as nurses, have been generally planted in the lower parts of the parish, and the larch and Scotch fir as timber trees, on the higher grounds. In the older plantations, the beech and the plane are found in considerable numbers; but the timber of these trees being now less valuable, they are not so much planted as formerly. The oak, ash, and elm, prevail in recent plantations. The woods on the estates of the principal proprietors have been regularly attended to in thinning and pruning, from the time of planting; and generally present a healthy and luxuriant appearance. The few patches of trees found on the lands of the smaller proprietors, are usually left in a state of nature, and felled without distinction of seasons, whenever required for home use.

The ash and gean or wild-cherry are found in abundance growing in a native state, in the woods on the estates of Castle-Campbell and Harviestoun; the birch, rowan, and bird-cherry, in Castle Campbell glen; the alder, on the banks of Devon; and the holly and hazel, in the copse-woods on the estates of Sheardale and Dollar-beg.

Rent of Lands.—The average rent of arable land is about L.3 per annum. The rent of some lands of excellent quality is so high as L. 5: of inferior lands, where the soil is not good, and the exposure bad, about L.1. The annual rent of grazing an ox or cow on good pasture is about L. 4, 10s. A full-grown sheep may be pastured on the Ochills for the year at about 6s. or 7s. The black-faced breed of sheep is the most common. They are much improved by getting rams or young ewes from the south; this keeps them pure, and prevents them from becoming dwarfish. This also preserves the quality of the wool, for when sheep-farmers breed too long with their old stock, without a change, the wool becomes grey. The Leicester breed, or a cross between Leicester and black-faced, is also a good deal tried here, and found to do well. The cattle here seem to be the old or Scots breed crossed with the short-horn or Ayrshire breed.

Wages.—The rate of wages for labourers in country work is from 12s. to 15s. per week in summer, and from 10s. to 12s. in winter. The wages of a farm-servant are from L. 14 to L. 15 per annum in money, with 6½ bolls of oatmeal, L. 2, 12s. for what is called kitchen, five or six bolls of potatoes, a free house and small gar-

den, and the privilege of driving his own coals. Women employed in farm work get 1d. per hour or 9d. per day. In harvest-time, when employed in reaping, the wages generally given are 1s. 6d. per day, with 4d. for dinner, and 1s. with 4d. for dinner when gathering potatoes. A mason at present gets 18s. and some L. 1 per week in summer and 17s. in winter; a carpenter 18s. in summer and 15s. in winter; a mason's labourer 12s. in summer and 10s. in winter; slaters get the same wages as carpenters; blacksmiths get 6s. to 7s. per week, with board; bakers 10s. with board. tailors 7s. with board; shoemakers are paid by the piece; they get for men's shoes from 2s. 4d. to 2s. 6d., for women's from 1s. 10d. to 2s. Colliers are paid according to the quantity of coal they lay out, at the rate of 2s. 2d. or 2s. 3d. per ton, furnishing for themselves picks, lamps, and oil. A good hand will gain about 3s. 6d. per day, but they work only nine days in the fortnight. Workmen at the tile-work, when paid by the week, generally get 12s.; but those who work by the piece make 15s. or 16s. per week. The wages at the bleachfield for men are 8s. per week, and for women 3s. 6d.

Articles of Raw Produce.—The price of oatmeal varies according to the rate of the Edinburgh and Stirling markets. For several months past, it has been selling at 17s. or 18s. per boll of 140 lbs. avoirdupoise, and barley-meal at 14s. per boll. The price of potatoes depends upon the season being either favourable or unfavourable; but for some years past, they have been selling at 1s. per bushel or 6s. per boll. The usual price of carrots is 1d. per lb. or 1s. 4d. per stone of 16 lbs. Hay was selling last year at 1s. per stone or rather higher; but this year, it cannot bring that price with us, and, from the favourable prospect of the hay harvest this season, it is likely the price next year, (1842,) will be considerably reduced. Butcher-meat has been selling for many months past at 6d. per lb. of 16 oz.; but the price has recently, (May 1841,) risen to 7d. per lb. A good hen may be bought for 1s. 6d. or 1s. 8d., and chickens 1s. 4d. per pair. Eggs sell at 6d. to 8d. per dozen; butter at 11d. or 1s. per lb., and country cheese at 3½d. and 4d. per lb. of 16 oz. Sweet milk sells at 1½d. per chopin; skim milk ¾d.; butter milk, ½d. and cream at 10d., though some charge a little higher, under the plea that their milk is better.

The Character of the Husbandry.—The system of a rotation of crops is universally followed. Supposing the land to be in grass, there is taken first a crop of oats; and if the land has been for se-

veral years in pasturage, a second crop of oats is taken ; then it is laid down for potatoes or turnips, or both. After potatoes, it is sown with wheat or barley and grass seeds, and the fourth year there is a crop of hay from the rye-grass seeds and clover, sown with the barley of the preceding year. If the grass seeds sown are perennial, the ground is sometimes allowed to remain in pasture for one, two, or three years, and then the same rotation is repeated ; but if the tenant considers pasturing less profitable than tillage, and more especially if he has a short lease, he generally follows the four years rotation above-mentioned, though there can be no doubt that tearing up the ground so often exhausts the soil.

The land in the parish has, for some years past, been greatly improved by liming and draining. The common duration of leases is fifteen or nineteen years—too short a period certainly for tenants venturing to lay out money in the improvement of the soil. But most of the proprietors who let their lands are all so eager to get high rents (for a reason to be mentioned immediately,) that the tenants find great difficulty in paying their rents, and often congratulate themselves upon the shortness of their leases. The chief obstacle to improvement in the parish is the unfortunate circumstance, that by far the greatest part of the property has, for many years, been under trust, or in the market for sale. The great object of a landlord, in these circumstances, is to increase the amount of his rent-roll by every means in his power ; and this leads him to ask extravagant rents for his land, which are seldom paid, but which involve the tenant in ruin. Old pasture land is sometimes let for tillage for two or three years, and a great rent is thus obtained ; but the soil is greatly deteriorated. The fences at the same time are often entirely neglected. Most of the farm-buildings are in a good condition. Such of the proprietors as farm their own lands, keep their fences in excellent order.

Quarries and Mines.—There are two excellent stone quarries, which furnish well-coloured and durable materials for building. The chief mines are coal, which are worked to a great extent, and supply Strathearn and its neighbourhood with coals, which are not found anywhere to the north of Dollar. Copper mines were attempted to be worked in the Ochills connected with Dollar, but did not succeed.

Produce.—The average annual amount of agricultural produce, as near as can be calculated, is as follows.

Oats, 8085½ bolls, at 19s. per boll,	-	-	-	L. 2916 18 0
Wheat, 1818 bolls, at L. 1, 4s. per boll,	-	-	-	2217 12 0
Barley, 1799 bolls, at L. 1, 1s. per boll,	-	-	-	1889 9 6
Cultivated hay, 82,500 stones at L. 3, 10s. per hundred stones,	-	-	-	2887 0 0

Turnips, 204½ acres, at L. 12 per acre,	-	-	-	2448	0	0
Potatoes, 204½ acres, at L. 13 per acre,	-	-	-	2672	19	0
Land formerly in a state of cultivation, now laid down as permanent pasture,	-	-	-	95	0	0
Meadow hay,	-	-	-	93	0	0
Total,				L. 15,219	18	6

The above calculation has been made on the presumption, that the land is cultivated in a regular rotation of crop, which it generally is. The fractional parts of acres, on the different estates, have not been taken into account, which, if done, would add something to the yearly amount. It will be seen from the above table, that the oats, wheat, and barley are the principal grains cultivated. Beans and peas have been found not so productive, and are seldom sown. Bear was formerly in use, but has now given place to barley. Bone dust begins to be in use for the culture of turnip, when the crop is usually eaten off with sheep, or if sold for that purpose, the value of an acre is from L. 2 to L. 3, according to the quality of the root.

Manufactures.—The principal manufacture in the parish is bleaching. It was begun by the late Mr Haig in the year 1787, and since that period, the quantity of cloth bleached has been yearly increasing. The field for the first two years consisted only of four acres; at present the cloth covers about 80 acres. The use of oxymuriatic acid in bleaching was early introduced here, and Mr Haig obtained a premium from the Board of Trustees, for his success in applying it. It is said, in the former Statistical Account, that cotton goods, to a great extent, are bleached at this field, but this is a mistake; for the field, at least at present, is exclusively appropriated to the bleaching of linen goods. There are employed at the bleachfield 31 men, 26 women, and 5 boys, in all 62; at the brick and tile-works, 14 men, 1 woman, and 4 boys and girls. The woollen mill employs 2 men, 4 boys and girls. The usual hours of labour are twelve, including the breakfast and dinner hours. The work people seem all contented; at least, we hear of no murmurings about the smallness of wages.

V.—PAROCHIAL ECONOMY.

Market-Towns.—The nearest market-town is Alloa, about seven miles distant from Dollar. A runner, paid by the General Post-Office, arrives daily from Alloa about one o'clock P. M., and, after going and returning from Muckhart, sets out again to Alloa, after an interval of nearly six hours. The turnpike-road from Kinross to Stirling passes through the parish, for about a mile and a quarter and the turnpike-road to Dunfermline, for about a mile and a-half. A public carriage or stage-coach began, a few years ago, to run

from Perth to Glasgow by Dollar; but has been given up for want of encouragement. There is a wooden bridge over the Devon at the Rack-mill; but in a very ruinous state, and often impassable, which proves a great inconvenience to parishioners who live on the south side of the Devon, in going to church, and also to children going to school.

Ecclesiastical State.—The parish church is situated about a tenth of a mile or less from the eastern boundary of the parish, but is very convenient for the great body of the population, who reside chiefly in the old and new villages of Dollar, which are in the immediate neighbourhood of the church. The old church was built in 1775. A new church is building at present, (1841.) The most important benefaction to the parish is Macnab's legacy, which has been fully noticed already. There are, besides, a few small donations to the poor, amounting to L. 319, and the interest of L. 31, left for the behoof of the schoolmaster.

The old church afforded accommodation to about 300 sitters; the new church will accommodate above 600. There are no free sittings. The whole seats, with the exception of the minister's, schoolmaster's, and elders' seats, are divided among the heritors and feuars. The kirk-session have, for several years, been in the habit of letting the communion table seats at a small annual rent, for the benefit of the poor, but of late it has amounted to almost nothing. The manse was built in 1795. It was repaired and a considerable addition made to it in 1817, and new offices were built in 1820. The glebe consists of four acres of good land. The stipend is in general below L. 150. The augmentation from the Exchequer amounts to L. 23, 6s. 8d. There is a Dissenting chapel connected with the Associate Synod of Original Seceders. The minister's stipend is paid from seat-rents, and collections at the door of the chapel. The stipend promised is L. 90, but he has no bond for security of payment. There are no Episcopal or Catholic chapels in the parish. Several Episcopalians reside in the parish, and attend public worship regularly in the Established Church, except on the great festivals of their own church, when they generally go to Alloa, where a new Episcopal chapel has been lately erected. There are 262 families who attend the Established Church, and 1306 persons of all ages, connected with the Established Church. Thirty-one families, consisting of 140 individuals, attend the meeting-house in the parish. Six families, consisting of 25 individuals, attend the meeting house in Muckhart. Two families of 10 persons go to Tillicoultry meeting-house. There are, besides, one family of four who profess to be Methodists: one

consisting of eight connected with the Relief Synod ; and one family of six, who give out that they are Baptists.

Divine service is generally well attended in the Established Church ; and we believe also in the meeting-house ; making allowance for the small number of Dissenters.

The average number of communicants in the Established Church is about 350. There are no societies for religious purposes established in the parish, except a ladies missionary society, lately formed. The average amount of collections yearly for the Assembly's different schemes, including an annual public collection for the poor, may be about L. 15.

Education.—The schools in the parish are three : 1st, the parochial school ; 2d, Macnab's school ; 3d, a girl's school. The branches of education taught in the parochial school are, reading, writing, and arithmetic. None of the higher branches,—such as Latin and mathematics,—are taught : indeed, the parish school is almost superseded by Macnab's school. The parochial school-master's salary is L.25, 17s. 9½d : he receives besides, L. 3 as session-clerk ; and about L. 1, 6s. as interest on mortified money, which varies with the rate of interest. His school fees, at an average, amount annually to L. 11 or L. 12 ;—say L. 11. The following branches of education are taught at Macnab's school or Dollar Institution, under separate masters, viz. 1. English and English grammar ; 2. writing and arithmetic ; 3. Latin, Greek, and oriental languages ; 4. modern languages ; 5. mathematics ; 6. drawing ; 7. geography. There is also a numerous infant school in connection with this establishment.

The amount of salaries of the masters in Macnab's school was, at one time, made partly dependent on the number of their pupils ; but, of late, the minimum of salary to each master has been fixed at L. 140 per annum, with a large house and garden. No fees are paid by the pupils attending Macnab's school to the master, but are paid quarterly to the treasurer of the institution. The fees formerly amounted yearly to about L. 100 ; but, in consequence of their being lately lowered, they now average about L. 80 yearly. Boarders pay 10s. per annum for library and other school dues, and 5s. per quarter for each class they attend ; consequently, if they attend three classes, the yearly expense will be L. 3, 2s. 6d. ; if four classes, the yearly expense will be L. 4. The children of residents who have been three years in the parish, and are supposed to be in good circumstances, pay 2s. per quarter for library, &c. and 5s. per quarter, for each class they attend ; consequently, if they attend three classes, the yearly expense will be L. 2, 19s. 6d. ; if four classes, the

yearly expense will be L. 3, 17s. The children of artisans or labourers who have been three years in the parish, pay 6d. per quarter for the library, &c., and 8d. per quarter for each class they attend; consequently, if they attend three classes, the annual expense will be 8s. 9d. per annum; if four classes, it will be 11s. 1d. per annum.

The above statement of expense of education at Macnab's school is made upon the supposition, that one pupil only out of each family attend; but when more than one of a family enter, the first only pays at the rate now stated; but if more than one, all the rest are admitted at half-price. The fees for teaching in the parochial school are, for English 8s. 9d. per annum; for English with writing, 10s. 6d. per annum; for English, writing, and arithmetic, 14s. per annum. In the girl's school, English, writing, and sewing are taught, and the fees are 2d. per week, or 2s. per quarter.

Library.—There is a very extensive and well-chosen collection of books belonging to Macnab's school or Dollar Institution, to which the parishioners have access.

Friendly Society.—A Friendly Society was instituted here in the year 1829, and is doing well. Its object is to give a weekly allowance to sick members, and such as are not able to work. Its funds are regularly on the increase; at present, they amount to L. 220. Besides the weekly aliment to the sick, small pensions are given to the more destitute widows of deceased members.

There is no savings bank in the parish; and the nearest to Dollar is in the parish of Tillicoultry, about three miles distant, and was established about the year 1835.

Poor and Parochial Funds.—The average number of persons on the poor's roll, and who receive regular parochial aid, has for some years past been about 12 or 13. Of late, the number has been on the increase, amounting occasionally to 19 and 20. Various causes may be assigned for this increase of pauperism; among others, we may notice Macnab's legacy, which has been the means of inducing a number of worthless, at least not very respectable, characters from other parishes to settle in Dollar. In corroboration of this opinion, we may mention that the number of illegitimate children has, of late years, considerably increased. During the three years preceding 1841, there have been no less than 12 illegitimate children born in the parish.

The average monthly allowance to those who have got upon the poor's roll is 5s. or 6s. Besides those upon the poor's roll, who get regularly their monthly allowance, there are others not on the poor's roll, who receive small sums to help them

in cases of sickness and want of work. In addition to the money distributed to the poor from the kirk-session funds, a collection is made annually at the church-door, and a subscription paper is handed round the parish, to obtain a fund for the supply of coals, &c. for the poor in general, during the severity of winter. The money raised in this way is very considerable, and does great credit to the more wealthy of the parish. The collections at the church-door have, for some years past, amounted to something more than L. 50. There was paid into the poor's box last year, after deducting the session-clerks dues, L. 2, 10s. for proclamations of marriage, L. 1, 18s. 6d. for the use of the mortcloth, and L. 1, 7s. for lairs or ground purchased for burying. To the above must be added the interest of L. 319, the amount of several bequests to the poor, and a small sum derived from the letting of the communion seats. Both heritors and kirk-session are very averse to have recourse to an assessment; but, if the number of the poor increase as rapidly as it has done of late years, it will be impossible much longer to stave off an assessment.

Fairs.—There are four fairs, according to the *Almanacks*, held in Dollar, but only two of them deserve to be noticed, the fairs in May and October. In both of these fairs, cattle are chiefly sold; horses or sheep are seldom seen in these markets. At the May fair, the chief transaction is the sale of cattle that have been kept during the winter on straw and a few turnips. They are bought up by butchers and others, who have grass parks to stock during the summer. At the October fair, young cattle chiefly are sold as winterers to farmers and others, who require manure, and are resold at the May market.

Inns.—There is only one inn in the parish; but about five or six alehouses. There are, besides, four or five houses where spirits and malt liquors are sold over the counter. The number of alehouses and retail-shops for spirits, has of late diminished, but without the effect of increasing temperance. Clubs are now formed for drinking in houses. We are sorry to be obliged to add, that whisky is often sold in retail-shops on Sabbath. One of the greatest nuisances arising from whisky-drinking, is the licensing of the house at the toll-bar.

Fuel.—Coal is universally used as fuel, of which there is an abundant supply, as two extensive collieries are wrought in the parish, or in the immediate neighbourhood. The price of coal at the coal-hill or fold, is only 5s. per ton, and the distance to the village is so inconsiderable, that the driving makes only a trifling addition to the price.

of pretty high ground. After crossing this somewhat elevated track, we reach the valley along which the "Black Devon" runs. Immediately to the north of this stream, the elevation of the land begins again to increase, and it continues to rise, sometimes with a gentle and sometimes with a steep acclivity, for the space of more than a mile. On reaching the summit of this comparatively high ground, the beautiful and extensive district, through which "the clear-winding Devon" flows, spreads itself out to the view. And we are then conducted, by a somewhat steep descent, to the margin of that river, by which on the north the parish of Clackmannan is bounded.

Where this parish is situated, the rivers Forth and Devon are almost parallel to one another; but they flow in opposite directions, and the distance between them is more than four miles. Although most of the intermediate country be under cultivation, there occur some fine woodland scenery, and likewise two very pretty lakes. To the youth of the surrounding country and neighbouring villages, one of the lakes is, on the evenings of summer, an object of peculiar attraction, not on account of its romantic appearance and secluded situation, but because it abounds with perch, and contains very eligible places for bathing.

The only rivers connected with this parish are the Devon, the Black Devon, and the Forth. The source of the Devon is on the northern declivity of the Ochil hills; and, after running ten or eleven miles in an easterly direction, it is forced by the relative position of the hills and valleys to make a turn towards the west, at a place called "the Crook of Devon." After pursuing a westerly course, through a beautiful and romantic country, for twelve or thirteen miles, it pours its waters into the Forth, at a point nearly straight south from the locality of its source.

The Black Devon has its origin in the high and hilly country, of which the western division of the parish of Saline is composed, and, after pursuing a somewhat devious, but upon the whole westerly course, it makes a sort of semicircular sweep round the western base of the hill on which the tower and town of Clackmannan are situated. It subsequently runs in a south-easterly direction, and unites with the Forth about two miles from Clackmannan.

Opposite to the parish, the river Forth is not now, even at spring-tides, much more than a mile in breadth. A great contraction and deepening of the river have been occasioned by the very ex-

tensive embankments, which have been, from time to time, erected along its margin. Along the north side of the river, for example, embankments extend from a point, a few miles below Stirling, to a considerable distance below Kincardine. These embankments must be at least fifteen or sixteen miles in length. As to the average breadth of the rich alluvial soil which has been thereby reclaimed along the whole line of country, to which allusion has been made, the writer cannot hazard an opinion. But in the case of Clackmannan, it is fully a mile in breadth.

The depth of the Forth, opposite to the parish, being now very considerable, and there being a harbour at Kennetpans, and pretty extensive piers at the mouth of the Black Devon, the utmost facilities are enjoyed by the inhabitants of the southern division of the parish, as to the shipping of agricultural produce, coal, &c. A peculiarity connected with the tides in the river Forth is thus described in the former Statistical Account of the parish of Clackmannan: "The tides in the river Forth, for several miles, both above and below Clackmannan, exhibit a phenomenon not to be found, (it is said) in any other part of the globe. This is what the sailors call a "leaky tide," which happens always in good weather during the neap-tides; and sometimes also during the spring-tides, if the weather be uncommonly fine. When the water has flowed for three hours, it then runs back for about an hour and a-half, nearly as far as when it began to flow. It returns immediately, and flows during another hour and a-half to the same height it was at before: and this change takes place both in the flood and ebb tides. So that there are actually double the number of tides in this river that are to be found anywhere else. In very boisterous weather, however, these leaky tides are by no means regular—the water only swells and gorges, without any perceptible current, as if the two tides were acting against each other."

*Coal.**—The coal-field in the parish of Clackmannan contains eleven workable seams of coal, all of which have been wrought to a greater or less extent by the different collieries. They are of various thickness, viz.

1. 2 feet cubical coal.
2. 3 do. splint and cubical.
3. 3 do. cherry coal.
4. 5½ do. splint called upper five-feet coal.
5. 4 do. cherry and splint, with a stone in the middle.

* This part of the article was furnished to the Editor by Mr James Wilson, manager of the Clackmannan Coal Works.

6. 7 do. 4 feet splint, and 3 feet cherry, called nine-feet coal, with bands of ironstone on top.

7. 2 feet splint and cherry, with 9 inches of black band ironstone on the top.

8. 3 feet cherry.

9. 4 do. cherry coal, also called under-five-feet.

10. 3½ do. splint coal.

11. 4 do. splint and cherry, called Coalsnaughton Main coal.

The above seams are contained in a space of 110 fathoms, the under seam of four feet being 110 fathoms below the two feet. The coals are separated from each other by strata of various thickness, composed chiefly of sandstone, slaty sandstone, bituminous and argillaceous shale, fire or indurated clay, and beds of silicious and argillaceous ironstone.

The principal collieries in the parish are the Clackmannan colliery, the Devon colliery, Kennet and Gurtary colliery. The Alloa Coal Company, although their works are not situated in the parish, have extended their underground operations considerably into it.

The seams of coal that are chiefly worked, are the upper five-feet, the nine-feet, the under-five-feet or cherry, and the three-feet and a-half or splint coal. These are all of the best quality, and most extensive; the others are inferior, except the upper two-feet seam, which is excellent, but has only been found on the northern part of the parish, and worked to a small extent by the Devon Iron Company. The lower seam is not a bad furnace-coal, but will not answer for house use, and has been very little worked here. The upper five and nine-feet coals are only worked at present by the Devon Iron Company, and the produce is mostly used for melting iron. The under five-feet is worked by the Alloa Coal Company, and the cherry and splint by the Clackmannan Coal Company. The splint is also worked at Kennet colliery.

Coal has been worked here for upwards of 200 years, and to a great extent. The wastes in many of the seams extend over several hundred acres; yet the greater part of the coal remains to be worked, and would last, at the present rate of working, for more than 200 years.

The quantity of coals put out daily by the above works averages about 500 tons, 200 tons of which are consumed in the parish, mostly at Devon Iron-works for melting iron; the rest is shipped to various parts of Scotland. A considerable quantity is also shipped to the continent yearly. The value of each ton is about 5s., making the value of the daily produce L. 125. Up-

wards of 500 individuals are employed in working, transporting, and shipping the above quantity of coals.

The nine-feet seam of coal contains three bands of ironstone immediately above; which has been worked by the Devon and Carron Iron Companies.

The two-feet or M'Neish coal is worked extensively by the Devon Iron Company at present, chiefly for the seam of black band ironstone lying on its roof, which has only been lately discovered here, and is of very limited extent, existing only in the neighbourhood and under the town of Clackmannan. Besides these, there are several seams of argillaceous ironstone which are worked by the Devon Iron Company.

II.—CIVIL HISTORY.

Land-owners.—The chief land-owners are, the Earl of Mansfield, to whom the estate of Sauchie, which forms the north-west division of the parish, belongs; the Earl of Zetland, who is proprietor of the estate, &c. of Clackmannan; the Earl of Mar, whose property in the parish is extensive and valuable; the Right Honourable Lord Abercromby, proprietor of the estate of Brucefield, and eldest son of the late Sir Ralph Abercromby, which distinguished officer and most exemplary excellent man was connected with the parish; Robert Bruce Esq. of Kennet, the worthy and influential representative of a long line of useful, honourable men; and James Erskine, Esq. of Aberdona, grandson of the late Lord Alva.

Parochial Registers.—The records of the kirk-session commence in the year 1593, and, being pretty entire from that period, are of course somewhat voluminous.

“Clackmannan was for many generations the seat of the chief of the Bruces in Scotland. It is not certain, however, at what precise period John de Bruce, third son of Robert, one of the Earls of Annandale, became proprietor of it. King David II. gave it to his kinsman, Robert Bruce, the first laird of Clackmannan. (*Dilecto consanguineo*, saith the charter, dated at Perth the 9th of December, A. regni 39,) which must have been a very short time only before his death. It is probable, indeed, that King David resided at Clackmannan, at least during the first part of his reign, since we find that, in the year 1330, his chamberlain, Reginald More, settled his public accounts there.”*

Antiquities.—“The old tower, which still remains, is said to have

* Statistical Account by the late Rev. Dr Moodie.

been built by King Robert Bruce. From the style of the building indeed (for there is no date upon it,) it appears to have been erected about this time; and from several names of places, we may conclude that it actually was the residence of some of the kings—as the following names seem to indicate “King’s Seat Hill,” “King’s Meadow Park,” and others of a similar nature, in the vicinity of the tower.* The greatest height of this tower is 79 feet. It contains a variety of apartments, and has been surrounded by a moat, with a draw-bridge. Adjoining the tower stood the old mansion, the residence of the family, till the direct line became extinct.” To the top of the tower, the tourist may ascend by a spiral stair. In going round its summit, the views vary at every step, and, whether contemplated separately or in conjunction, are truly grand. There is another old tower situated on the banks of the Devon, belonging to the Earl of Mansfield. This tower and the estate of Sauchie, with which it is connected, were long in the possession of the family of Lord Cathcart. The Sauchie tower is still more entire than that of Clackmannan. There was also one of the same kind at a place called Hart Shaw, which belonged originally to the Stewarts of Rosyth. It was probably the hunting-seat of that family, as the name appears to denote.

Modern Buildings.—The present parish church was erected about twenty-four years since. It is a handsome structure, with a tower of considerable height, and, occupying as it does, an elevated and commanding position, is seen from a great distance; it contains 1250 sittings. An extension church is being erected in the north-west division of the parish; it will contain 620 sittings. The site of it is an exceedingly eligible one, being perfectly central in reference to the district for whose population it is intended, and also adjacent to fine woodland scenery, whose general aspect will be rendered more interesting by the handsome tower of the new church. At the cross in the town of Clackmannan, there remains a gable and tower, which were formerly connected with the County Hall, prison, &c. The present County Hall, which is of modern erection, is situated immediately to the north of the town.

There are several mansion-houses in the parish. On the estate of Sauchie, in the north-west division of the parish, the venerable mansion of Schaw Park, one of the seats of the Earl of Mansfield, is situated. It is an old and very large building, and

* See accounts of the Chamberlain of Scotland in the year 1329, 1330, and 1331, from the originals in the Exchequer, published by Mr John Davidson in 1771.

some of the apartments are spacious and elegant ; but the external appearance of the mansion-house, and of the buildings connected with it, as well as the general aspect of the grounds, impress deeply on the mind of the spectator the idea of decayed grandeur. The mansion-house of Kennet is delightfully situated on the rising ground which overlooks the basin of the Forth, and is about a mile distant from the river. Its external appearance, although handsome, is not fitted to convey an adequate impression of the internal elegance by which it is characterized. The existing proprietor and his excellent lady being in general resident, Kennet House is the scene of much hospitality to the rich, and of the most liberal charity to the poor.

The reverend and venerable Thomas Boston of Ettrick, whose memory and writings are embalmed in the hearts of so many of the Scottish people, did, in his youth, officiate for a time at Kennet, in the capacity of tutor. Under the shadow of a particular pear tree in the retired orchard, he was in the habit of engaging in those exercises, and of enjoying that communion by which he might be fitted and prepared for working that work which his Heavenly Father might give him to do. By those individuals about the place, who sympathised with the spirit which animated Boston, the pear tree was long viewed with a peculiar interest. When, at length, the symptoms of decay and dissolution became strikingly apparent, the present proprietor resolved to cause a chest to be made of the timber of its root, that he might present it with a suitable inscription to the Presbytery of Stirling, as an appropriate repository for their records. But, on examination, the whole was found to be in such a state of decay that the design could not be executed. The mansion-house of Aberdona is about four miles and a-half north-east from Clackmannan. Its position is retired and interesting. In travelling towards it from the south, one passes through a country whose surface is undulating and varied ; and there is a very pleasing intermixture of cultivated fields with sylvan scenery. Straight east from Clackmannan about three miles, the mansion-house of Brucefield is situated. There are about the place many fine old trees, and the plantations are very extensive. But the house and grounds and gardens appear to have been long neglected. About two miles from Clackmannan, and near to the margin of the Forth, stands the mansion-house of Kennetpans, belonging to John Stein, Esq. Immediately in front and towards the west and south-west, there is a

pretty extensive and beautifully level lawn. This lawn and the ground adjacent to it are bounded on the south by a strong perpendicular sea-wall, whose summit is on a level with the ground which it protects. From the lawn and house, one can view with the utmost distinctness, the miscellaneous assemblage of individuals, who are, in the course of the fine summer days, borne along by the steamers between Granton and Stirling. The only other mansion-house which I shall mention is that of Kilbagie, Robert Stein, Esq. It is about two miles south-east from Clackmannan, and one mile from the river.

The Devon Iron-Works are in the parish of Clackmannan. They are situated beside the river Devon, about four miles from Clackmannan, and three from Alloa. From these works there is one railroad which extends to Clackmannan-pow, at the mouth of the Black or South Devon. The length of this railroad is about six miles. There is another railroad from the neighbourhood of the works to the harbour of Alloa. Its length is about three miles. The latter is under the control of the Alloa Coal Company; but, by an arrangement between the two companies, the Devon Iron Company also enjoy the use of it. The ironstone required is obtained in the neighbourhood of the works, and also from the estate of Clackmannan, and likewise from a particular locality along the margin of the Devon, about five miles east from the works. The intermixture of different kinds of ironstone is thought to improve the quality, and of course to enhance the value, of the pig-iron produced. The limestone employed is brought from the neighbourhood of South Queensferry by the Forth, and the railways which have been mentioned. The coal used is obtained beside the works, and is exceedingly well adapted to the purpose to which it is applied. There are three furnaces in operation, and they now make, on an average, about 6000 tons of pig-iron annually. There being an extensive foundry connected with the iron-works, the Company convert a considerable proportion of their pig-iron into cast-iron goods.

There are five collieries and a portion of a sixth in the parish of Clackmannan; the Clackmannan, the Devon, a portion of the Alloa, the Kennet, the Aberdona, and the Brucefield collieries.

Distilleries.—There are in the parish two distilleries,—Kilbagie and Clackmannan. The former is a work of long standing and of great extent. There is a space of nearly seven acres covered by the various buildings, &c.; and the whole of said space is en-

closed by a very high wall. There are byres for the feeding of 700 cattle; and about 850 acres of land have been cultivated in connection with the distillery. The business of distilling has been here carried on for the London market. The Clackmannan distillery, which is adjacent to the town, is a work of much less extent. Whisky has been here made for the home or Scotch market.

There is also a very extensive brick and tile work in the parish; and there are three saw-mills driven by the water of the Black or South Devon.

III.—POPULATION.

The population in 1755,	.	1913
1791,	.	2528
1881,	.	4266
1841,	.	5159

The increase which has taken place in the population of the parish of Clackmannan is to be ascribed chiefly to the great extension of mining operations, particularly in that department of mining which relates to the working of coal.

About four-fifths of the population reside in the town of Clackmannan, and in villages, and in the rows and squares of houses adjacent to them.

There are two or three families of independent fortune resident in the parish. There are six proprietors of land of the yearly value of L. 50 and upwards. There are about 1200 families in the parish, and the average number of children in each family is five. The people are not characterized by any distinctive peculiarity as to strength, size, complexion, or any other personal qualities. There are three insane, three fatuous, three blind, and two deaf and dumb persons connected with the parish.

IV.—INDUSTRY.

A decided majority of the population derive a subsistence from the different collieries in the parish, and more than three-fourths of the inhabitants are connected with them and with the other works which have been mentioned. There is also a considerable part of the population employed in agriculture, several act in the capacity of carters, shopkeepers, and public-house keepers; and some are engaged in the weaving of woollen fabrics for the manufacturers of Alva and Tillicoultry. During a considerable part of the year, some of the women in the parish continue to sew for the Glasgow manufacturers, but the earnings from this source are now most lamentably small. Most of the females to which the

writer has been referring, derive the greater part of their annual subsistence from field-labour, the preparing of bark, &c.

Agriculture.—There are about 5000 Scotch acres in the parish, which are either cultivated or occasionally in tillage. There are about 400 acres which have never been cultivated, and which remain constantly waste or in pasture. Of these, very few are susceptible of being cultivated with advantage. There is no land in the parish in a state of undivided common. About 1600 acres of land are covered by plantations. There is a very considerable variety of trees, but the prevailing kinds are, Scotch fir, larch, spruce, and oak. On the estates of the Earls of Zetland and Mansfield, in particular, the management, as to yearly thinning, periodical felling, pruning, and the like, seems to be very judicious and successful.

As to the average rent of arable land, per acre, in the parish, the writer deems it proper to separate the land into three distinct divisions: 1st, carse land, (893 acres); 2d, good dryfield, (2137 acres); and 3d, inferior dryfield, (1970 acres.) The rent of the first of these three descriptions of land may be said to average L. 3, 3s. per acre; that of the second, L. 1, 10s.; and that of the third, 15s. The average rent of grazing is at the rate of L. 3, 10s. per ox or cow grazed for the season. As to farm-servants, the average rate is about L. 12, 12s. a-year of money wages, and 6½ bolls of oatmeal, and 1 Scotch pint of milk, per diem. Country labourers are commonly paid at the rate of 10s. a week in summer, and 9s. in winter.

In Clackmannanshire, the number of public works, and the amount of the population, being great in proportion to the superficial extent of the county, all kinds of agricultural produce sell comparatively high. This general remark applies particularly to the price of barley. Owing to the number of breweries about Alloa, and distilleries in the county, there is a very large annual importation of barley from other parts of the united kingdom. Hence the price received for this kind of grain, grown in the county, is in general equal to the amount, both of the price and of the expense of transportation, &c. of the barley which is imported.

As to the kinds of sheep and cattle, it may be mentioned that it is only among the Ochil hills, or in their immediate vicinity, that much attention is paid, in this district, to the breeding and maintenance of sheep; and that the preference seems to be given

either to the pure black-faced, or to a cross between them and the Leicester. In regard to cattle, great attention and much rivalry have been shown as to the improvement of the breeds. Some leading public-spirited gentlemen connected with the county have been long in the habit of rearing and exhibiting the short-horned, or Teeswater breed; and the success which has crowned their exertions, both at local exhibitions, and at the Highland Society's shows, evinces the high degree of superiority to which they have attained. Among the Clackmannanshire cows, in general, the characteristics which distinguish the Ayrshire and short-horned breeds seem to predominate, and as milkers, they are accordingly very superior. The cows which the writer has had, from time to time, may be regarded as average specimens of the prevailing kinds; and he understands that they have, in common, given during the summer months, at the rate of from ten to twelve Scotch pints of milk each per diem.

The Clackmannanshire Agricultural Society is a very flourishing institution, and, in regard to all departments of agriculture, has been productive of the most beneficial effects. By the meetings of the society, all the landed proprietors who are resident, and the various farmers, &c. throughout the county, are periodically brought together. On such occasions, the reciprocal communication of rural intelligence, the cultivation of friendly intercourse, and the reception and announcement of the most cheering encouragement, and the most animating rewards, have promoted in the most direct and influential manner every kind of agricultural improvement. Although the soil along the surface in the parish of Clackmannan exhibits considerable diversity of character, yet the subsoil is found to possess almost invariably the same character—that of hard cold till. Hence the applicableness of thorough or furrow-draining to all the different districts of which the parish is composed. Within the last few years, there has been accordingly an immense deal done in this particular department. The agriculturist, Thomas Ritchie, Esq. for example, who has gained the two last seasons the Clackmannanshire Society's highest prize, on account of draining, had, in the course of the two years, completed drains with drain-tile, on a farm in this parish seventy-three miles in length. Leases are commonly granted for the period of nineteen years. In some instances, money rents are paid; but in a great majority of cases, specific quantities of grain are stipulated for, convertible into money at the highest fiar prices of the county.

As to the state of farm-buildings, &c. in the parish, a favourable report must be given. Some of the farm-houses are of a most superior description.

As to quarries, there is one of considerable extent about half-a-mile south-west from Clackmannan, which belongs to the Earl of Zetland. The stone which it produces is a light-coloured, hard, and durable sandstone. There are also one or two quarries in the neighbourhood of the Black or South Devon. But, both as to appearance and durability, the stones which they produce are very inferior. On the Earl of Mansfield's estate of Sauchie, there are different quarries. They do not, however, exhibit any difference as to geological phenomena. The stone extracted from them is a reddish-coloured sandstone. When taken from the quarry, it is comparatively soft, and is very easily moulded into any form; but by exposure to the weather, it acquires additional hardness, and ultimately proves exceedingly durable.

Produce.—The average gross amount of raw produce raised in the parish, as nearly as that can be ascertained :

Estimated value of grain of all kinds, whether cultivated for food of man or the domestic animals, ...	L. 15,340	0	0
Estimated value of potatoes and turnips, ...	6,500	0	0
Do. of hay, ...	4,860	0	0
Do. of pasture, ...	3,000	0	0
Do. of the annual thinning and periodical felling of woods, plantations, and copse, ...	1,100	0	0
Do. of coal, ...	36,000	0	0
Do. of ironstone, ...	8,000	0	0
Do. of quarries, ...	800	0	0
	L. 75,100	0	0

V.—PAROCHIAL ECONOMY.

The only town in the parish is that of Clackmannan. It is still the county town, but the courts of law, &c. are held in Alloa. In the town of Clackmannan, and in the rows and squares of houses in its immediate vicinity, there is a population of 1600. In the course of the year, there are two markets held, but there is not now much business transacted in them. In Clackmannan, there are bakers, butchers, and a superabundance of shopkeepers; but the town of Alloa being only two miles distant, and the shops, &c. there being very superior, a very considerable proportion of the commodities required by the inhabitants of Clackmannan are purchased in Alloa. The principal villages in the parish are those of Newton-Shaw, Kennet, and Westfield. There is a post-office in Clackmannan, and the post from North Queensferry to Alloa and Stirling passes through the town about ten o'clock in the morning; and that from

Stirling and Alloa to North Queensferry about three o'clock in the afternoon. There is a coach from Alloa to Glasgow, which passes Clackmannan, every week-day morning a little after six o'clock, and returns every week-day evening about half-past eight clock. The steam-boats which sail between Stirling and Granton pier, afford to the inhabitants of Clackmannanshire a very cheap and very agreeable mode of visiting Edinburgh, and all intermediate places. Alloa and Kincardine are the places where Clackmannanshire passengers are received and landed.

Ecclesiastical State.—The parish church is situated beside the town of Clackmannan, and its position in reference to the population of the parish is as eligible as any that could have been selected. But the extent of the parish, and the amount of the population are so great that neither any one church nor any one minister could be regarded as sufficient for them.

From the church of Clackmannan, the parish extends towards the north-east, six and a-half miles : and towards the north-west, fully four miles. In the north-west division of the parish, there is a population of 1800, whose average distance from the parish church is more than three miles. The writer, feeling deeply conscious of his utter inability to do anything like justice to a population of about 5000, scattered over a surface of nineteen square miles, set himself to the task of endeavouring to raise money for the erection of an Extension church in the north-west division of the parish. By the Divine blessing, on the exertions which were employed by himself and others, funds for the purpose were at length realized, and the new church will be finished by the beginning of January 1842. The writer now entertains the cheering hope of seeing, ere long, an ordained minister labouring in the new parish of Sauchie, and of being thereby himself enabled to concentrate his exertions on a somewhat manageable field. The Extension church of Blairingone, in the parish of Fossaway, is not a mile distant from the north-east extremity of the parish of Clackmannan, and, accordingly, a district of considerable extent, but of small population, has been detached ecclesiastically from the writer's parish, and connected with the *quoad spiritualia* parish of Blairingone. After deducting the amount of the population of the two districts to which allusion has been made, there will remain under the writer's own pastoral superintendence about 3,300 souls. And when the parish has been circumscribed in the manner which has been mentioned, none of its population will be more than four and a-

half miles, and seven-eighths of the people will be less than two miles, from the parish church.

It has been already stated that the present church was built about twenty-four years since, and that it is seated to accommodate 1250 persons. The soil under and around the church being very strong clay, and very retentive of moisture, the church was felt during the winter months to be exceedingly cold and damp. But in the summer of 1839, the heritors and people were induced to subscribe for the erection of one of the heating and ventilating apparatus of the Messrs Haden, Wiltshire. The experiment having proved a most successful one, the church of Clackmannan is now, even in the most trying weather, perfectly comfortable. After the erection of the church, the sittings were apportioned to individuals, and those under them, according to the existing law on the subject. But, although, in consequence, there has not been any adequate provision made for not a few individuals, yet the practice of taking seat-rents has never been introduced.

The manse is comparatively large, and has been judiciously planned. It is situated to the south of the town, and towards the summit of the rising ground on which Clackmannan stands. The views from it, and from the walks about it, are very beautiful and extensive. From the immediate neighbourhood, when the atmosphere is clear, both Ben Lomond and the Pentland Hills are within the range of one's vision.

There are about four Scotch acres of glebe, whose annual value may be estimated at L. 16. The stipend is 18 chalders, one-half barley, and the other half oatmeal, convertible into money at the highest fair-prices of the county. There is besides an allowance of L. 10 for communion elements, and also L. 1, 13s. 10d. of "grass-mail."

The only other place of worship in the parish, besides the parochial church, is a Relief meeting-house. It was erected towards the close of the last century, and its first minister died about seven years since. His successor having resigned his charge several months ago, without obtaining any other appointment, the congregation, which is small, is at present without any minister. To the last incumbent they paid L. 75 of stipend.

A great majority of the inhabitants of the parish are in connection with the Established Church. But, owing to a variety of causes, which the writer deems it unnecessary to mention here, there is not that regard shown to the sanctity of the Sabbath, or to the ordi-

nances of Christianity, which it were so desirable to see universally evinced.

Education.—There are 7 day-schools in the parish, and there are also evening and Sabbath-evening schools. The parish school, which is adjacent to the town, is efficiently taught and numerous-ly attended. The teacher has the maximum salary, and being both session-clerk and clerk to the heritors, and since, from the amount of the population of the parish, there are very many registrations and certificates required, his annual income must be highly respectable.

Annual number of proclamations on an average of three years,	-	-	47
Annual number of persons buried in the burying-ground of Clackmannan, on an average of three years,	-	-	65
Annual number of children baptized by the writer on an average of three years,*	-	-	132

In the village of Kennet, which is about a mile from Clackmannan, Mr and Mrs Bruce have built an exceedingly handsome schoolmaster's house and school-house. To these they have attached an endowment, and a very neat garden. The teacher's house has been so planned that a large room in it is used as a school-room for young females, who are taught by his wife. In the Kennet village school-rooms, the usual branches of education are taught, but the imparting of scriptural knowledge is made to occupy an unusually prominent place ; and since the teacher is a man of much Christian zeal, and of exemplary diligence, his pupils exhibit the most pleasing proofs of the extent and the accuracy of their religious knowledge. When decided symptoms of intellectual and moral superiority are displayed by any of the young females, they are encouraged by Mrs Bruce to engage in those studies and occupations, which are fitted to prepare them to fill superior situations as servants in genteel families.

About seven years since, there were a schoolmaster's house and very large school-room, erected at the Devon Iron-Works. The teacher has a house, garden, and coal, and also his fees guaranteed to him by the Devon Iron Company. The day-school is numerously attended ; and since the teacher also teaches an evening and Sabbath-evening school, much benefit has been thereby imparted to the rising generation in that district of the parish. In the large school-room at the Devon Iron-Works, the writer has

* It is believed that the number which has been mentioned (132,) may be regarded as being about one-third of the children born in the parish ; and if this supposition be nearly correct, the average number of births will be, of course, about 220. The writer is disposed to think that the mortality is comparatively great among the infant portion of the population connected with the different collieries in the parish.

all along preached once a month on the Sabbath-evenings, for the benefit of those of his people in that district who either cannot, or will not, come four miles to the parish church.

At the village of Westfield, on the estate of the Earl of Zetland, there are a schoolmaster's house, school-house, &c. supported and maintained in a manner similar to those at the Devon Iron-Works. Here, too, much good is doing by the imparting of general knowledge, and by the inculcation of Christian principles.

At Forest Mill, a hamlet about three miles and a-half north-east from Clackmannan, there are a schoolmaster's house and school-room, and some ground, to insure, if possible, the permanent residence of a teacher. That part of the parish, however, being thinly inhabited, it has been found impossible to give to a good teacher anything like an adequate remuneration. There has been accordingly a succession of young men, who have merely alighted there, on their way to some higher region. In 1766, Michael Bruce, the author of "Lochleven" and other poems, was the teacher at Forest Mill. In the days of other years, his poetry was very popular, but it has fallen into the shade; and the opinion of Sir Walter Scott, as quoted by Lockhart in his *Life of the "Great Minstrel,"* will not tend to revive its celebrity.

In the populous village of Newton-Shaw there are a school-room and garden, and a few pounds a year, given by the Earl of Mansfield, to assist in the maintenance of a teacher for the benefit of the children of his Lordship's feuars. The Newton-Shaw school has been, for some years, well taught and well attended. The only remaining day-school in the parish is in the neighbourhood of Clackmannan. The teacher is altogether dependent on his own exertions. He has, in common, a pretty numerous attended school. At the seven day-schools which have been mentioned, there are on an average about 500 scholars, being very nearly one-tenth of the entire population of the parish. The writer is decidedly of opinion, that in the town of Clackmannan a well conducted infant-school would be the means of doing very much good.

In the town of Clackmannan, there are two libraries—the one intended for the more wealthy portion of the community, and the other for the common people. But a desire for knowledge, and a thirst for reading, do not appear to be by any means prevalent.

Poor and Parochial Funds.—

Number of paupers on permanent roll, exclusive of lunatics and those receiving occasional relief, on an average of four years,	61
Number of persons dependent on these,	32
lunatics,	3
persons not on permanent roll, but receiving occasional relief,	46

Average number of poor of all classes, . 142

Average of three years collections at church-doors,	L. 66	2	0
Average amount of other voluntary contributions, being annual subscriptions by the heritors and people,	120	18	4
Average amount of mortcloth dues and other sessional funds,	14	0	4

L. 200 15 8

Average amount distributed among paupers on permanent roll,	L. 160	0	0
Average amount distributed for support of lunatics under superintendence,	45	0	0
Average amount distributed among persons not on permanent roll,	25	0	0
Average amount disbursed annually in the education of children,	6	0	0
	236	0	0

Amount of annual expenditure over annual income, L. 35 4 4

To obviate the evils arising from what the preceding financial statement represents, the heritors resolved, *1st*, to allow themselves to be assessed for the amount of the arrears. And *2dly*, to allow themselves to be assessed annually for such sums as might be found necessary for the maintenance of all lunatics—thereby of course, relieving the ordinary sessional funds of the burden of supporting lunatics. This plan being now in operation, the belief is entertained that the sessional income will be made to meet the sessional expenditure. Among the purely agricultural part of the population, a determination is shown to “fend for themselves” as long as possible. But among the persons connected with the different collieries, there is, in general, a disposition evinced to come upon the session as soon and as much as possible.

The great multiplicity of public-houses in the parish is an evil exceedingly to be deplored, since it might be shown to have been productive of the most disastrous effects. It must, however, in consistency with truth, be stated, that the amount of intemperance has been of late considerably diminished by the influence exercised by the advocates of total abstinence.

Coal is the fuel used by all classes of the people. The price on an average is about 6s. per ton. And since the whole of the numerous colliers families in the parish have an allowance of coal, as well as free houses and yards; and since, in the parish, this fuel is at all times comparatively cheap, the blazing fires by which the

cottages of the people are warmed, conduce very much to their comfort, and, of course, to their health and longevity.

MISCELLANEOUS OBSERVATIONS.

Since the former Statistical Account of the parish of Clackmannan was written, there have been a great extension and improvement of the embankments along the side of the Forth; thorough-draining, liming, and manuring, have been practised on a continually extending scale; the character and value of all the different kinds of farm-stock has been now much enhanced; a great additional length of rail-roads has been formed, and their general character, in common with that of other roads, has been very much improved. The climate, too, has been ameliorated, and the aspect of the country been made more attractive by additional plantations. And it is pleasing to observe, that a proportional degree of improvement has taken place in regard to the food, and the raiment, and the dwelling-houses, and all the other constituents of comfort, of the people.

November 1841.

GENERAL OBSERVATIONS ON THE COUNTY OF CLACKMANNAN.

THIS county is situated between $56^{\circ}5'$, and $56^{\circ}14'$ north latitude, and between $3^{\circ}33'$ and $3^{\circ}56'$ west longitude from Greenwich. It is the smallest county in Scotland, containing only about fifty-two square miles. It is bounded on the south and south-west by the river Forth; by Fifeshire on the south-east; and in other directions by Perthshire. About three-fourths of its surface are computed as under cultivation.

The rent of the county for the year ending April 1811 was returned at L. 32,047: and for the same year the rent of houses was stated at L. 2827. The annual value of real property, as assessed in 1815, was L. 37,978. The old valuation, L. 26,482, 10s. Scots.

This county returns a member to Parliament along with the county of Kinross. But by the Reform Bill, there were added to it for election purposes the neighbouring parishes of Curloss, Tulliallan, Alva, and the Perthshire part of Logie. The Parliamentary constituency in 1840 amounted to 836.

I. TABLE shewing the number of persons committed for trial or bailed for different offences in the county of Clackmannan, in the year 1840:

Offences against persons,	10
Offences against property, committed with violence,	1
without violence,	19
Forgery and offences against the currency,	2
Other offences,	4
Total,	36

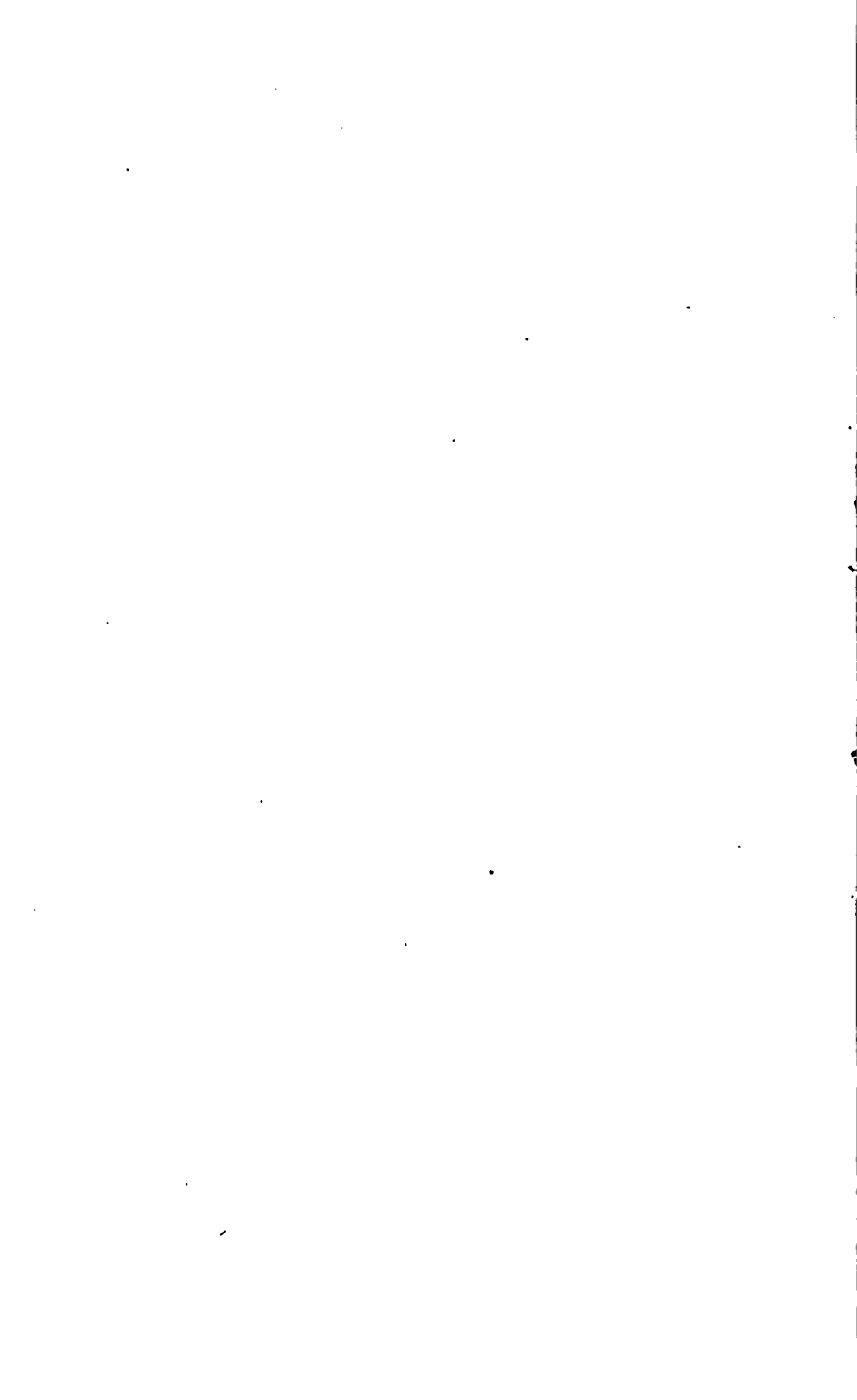
II. TABLE, shewing Ecclesiastical State, &c. of Parishes in the County of Clackmannan.

Parishes.	Population in 1891.	Ecclesiastical State.					Schools in Par.	Parochial Schoolmasters' Emoluments.			Annual Amount of Contributions to the Poor.			
		Families belonging to Estab. Ch.	Individuals Do.	Families of Dissenters or Seceders.	Individuals Do.	Amount of Parochial Ministers' stipend.		Salary.	Fees.	Total.	From assessment or voluntary contrib. by Heritors.	From Church collections.	From Alms, Legacies, &c.	Total.
Alloa, .	6377	...	4298	...	2576	19 chalders.	10	L. 84 4 4	L. 25 0 0	L. 60 0 0	L. 886 7 1	L. 174 9 2	L. 74 10 11	L. 585 7 2
Tilltoultry,	1472	...	1160	...	312	15 chalders.	8	25 18 8	...	...	...	26 11 10	Interest of L. 208, &c.	...
Dollar, .		262	1806	42	198	L. 150	8	25 17 9½	11 0 0	36 17 9½	...	50 0 0	Interest of L. 819, &c.	...
Clackmannan,	4266					18 chalders.	7				120 13 4	66 2 0	14 0 4	200 15 4

CORRIGENDA TO DOLLAR.

Dollar.—Since the preceding account of Dollar was printed, certain evidence has come to our knowledge, which leads us to believe, that a slight error has been fallen into in the note on page 105, relative to the ancient titles to the lands and Castle of Gloom or Campbell, which it is proper to correct. We have there given our reasons for believing that Colin, Earl of Argyle, married the *eldest* daughter of John, third Lord of Lorn and Innermeath, which reasons appeared satisfactory, and they are supported by Douglas, who, in his *Peerage*, states that Colin, Earl of Argyle, married Isabell, the *eldest* daughter of the said Lord Lorn. In the Black Book of Taymouth, which is a family manuscript kept at Taymouth Castle, and which was commenced about a century after the marriage, it is, however, stated, that Sir Colin Campbell of Glenurchy, who was the uncle and guardian of Colin, first Earl of Argyle, married the *eldest* daughter of the said John Lord Lorn, whose name was *Janet* and not *Margaret*, as she is called in the note; and this statement we have reason to believe is true. The uncle, Sir Colin, was married some years previous to his ward, the Earl; and it is not likely that the wife of the latter would be older than her sister, the wife of the former; and in some old papers connected with the Argyle and Glenurchy families in the seventeenth century, Argyle is charged with ingratitude for having forgotten that Sir Colin Campbell, the husband of the elder sister, had consented to hold his third of the lordship of Lorn, &c. (the right to which in the brother or heir-male of John, third Lord Lorn and Innermeath, was given up by an agreement to the heirs-female), of the husband of his wife's younger sister, to increase the dignity of the family of Campbell, of which the latter was the chief, which statement is not denied in the papers for the Earl of Argyle. This family arrangement accounts for the Castle of Gloom being on that portion of the lands that fell to the Countess of Argyle, although she was not the eldest sister. The main point in the note is untouched, and seems to be indisputable, viz. that Castle Campbell came into the possession of the Argyle family in consequence of the marriage of Colin, first Earl of Argyle, with Isabell, daughter of John third Lord of Lorn and Innermeath, grandson of John first Lord Innermeath and Lorn, who married the daughter of John de Ergadia, the former proprietor of Lorn.

P. 80, l. 12, delete "is reckoned a good breeding stream for salmon."



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